

Valve system, Series HF02-LG

- Configurable valve systems, Multipole, Field bus



Blocking principle	Single base plate principle
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Operational voltage electronics	24 V DC
Number of valve positions,max.	16
Protection class,with connection	IP65
DC operating voltage	24 V
Voltage tolerance DC	-15% / +20%

Overview of variants

	Version	You have the following options:
	Multipole	Electrical connection D-Sub plug, 25-pin, on the side D-Sub plug, 44-pin, on the side
	Direct field bus connection	B-design
	Field bus connection with I/O functionality (CMS)	B-design
	Connection with diagnosis, optionally with I/O function (DDL)	B-design
	Connection with diagnosis (DDL)	B-design
	Field bus connection with AS i	B-design

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

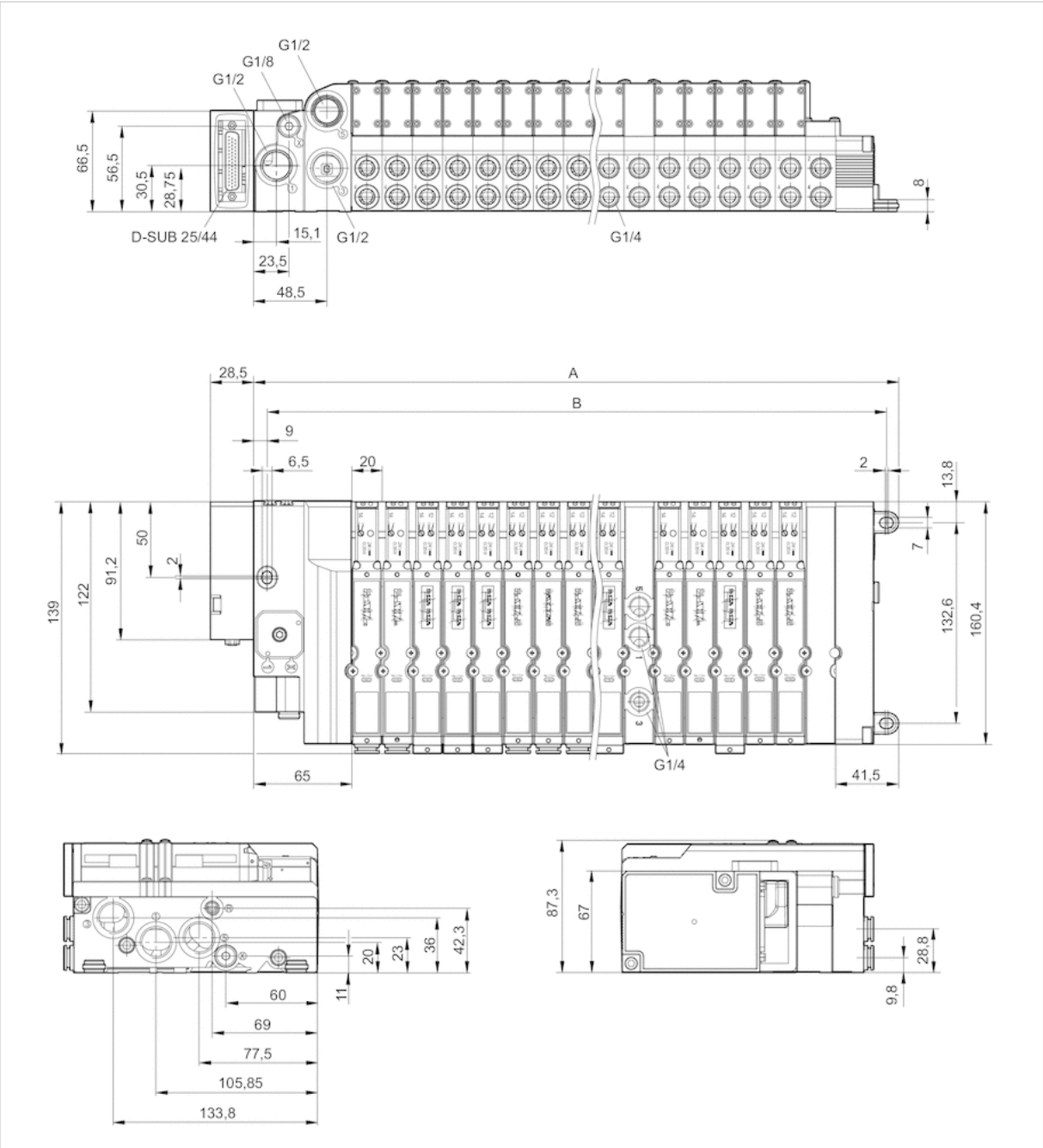
See the following pages on the series for technical data on individual components.
The technical data for the electronics (link structures) can be found in the section “Fieldbus Connections”.
For push-in fittings, only use plug accessories made of plastic (polyamide) from our catalog.
It is necessary to maintain the electrical current in the coil of double solenoid valves to avoid unexpected auto-switching.

Technical information

Material	
End plate	Aluminum
Plug box	Polyamide
Base plate	Polyamide

Dimensions

Dimensions D-Sub plug on the side



Dimensions

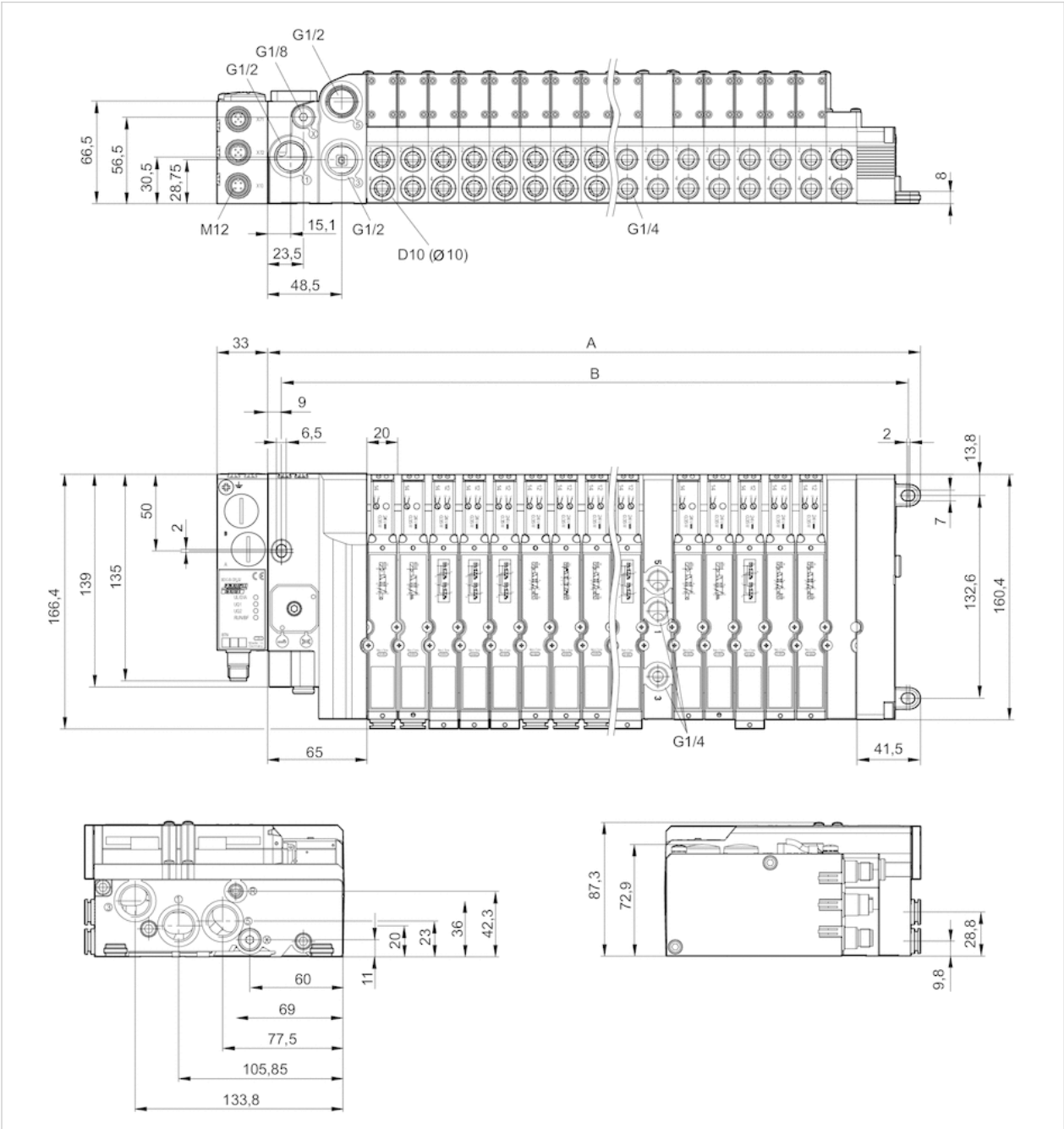
n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5
5	206.5	189.5
6	226.5	209.5
7	246.5	229.5
8	266.5	249.5

n	A	B
9	286.5	269.5
10	306.5	289.5
11	326.5	309.5
12	346.5	329.5
13	366.5	349.5
14	386.5	369.5
15	406.5	389.5
16	426.5	409.5

n = number of base plates

Dimensions

Dimensions Direct field bus connection (BDC)

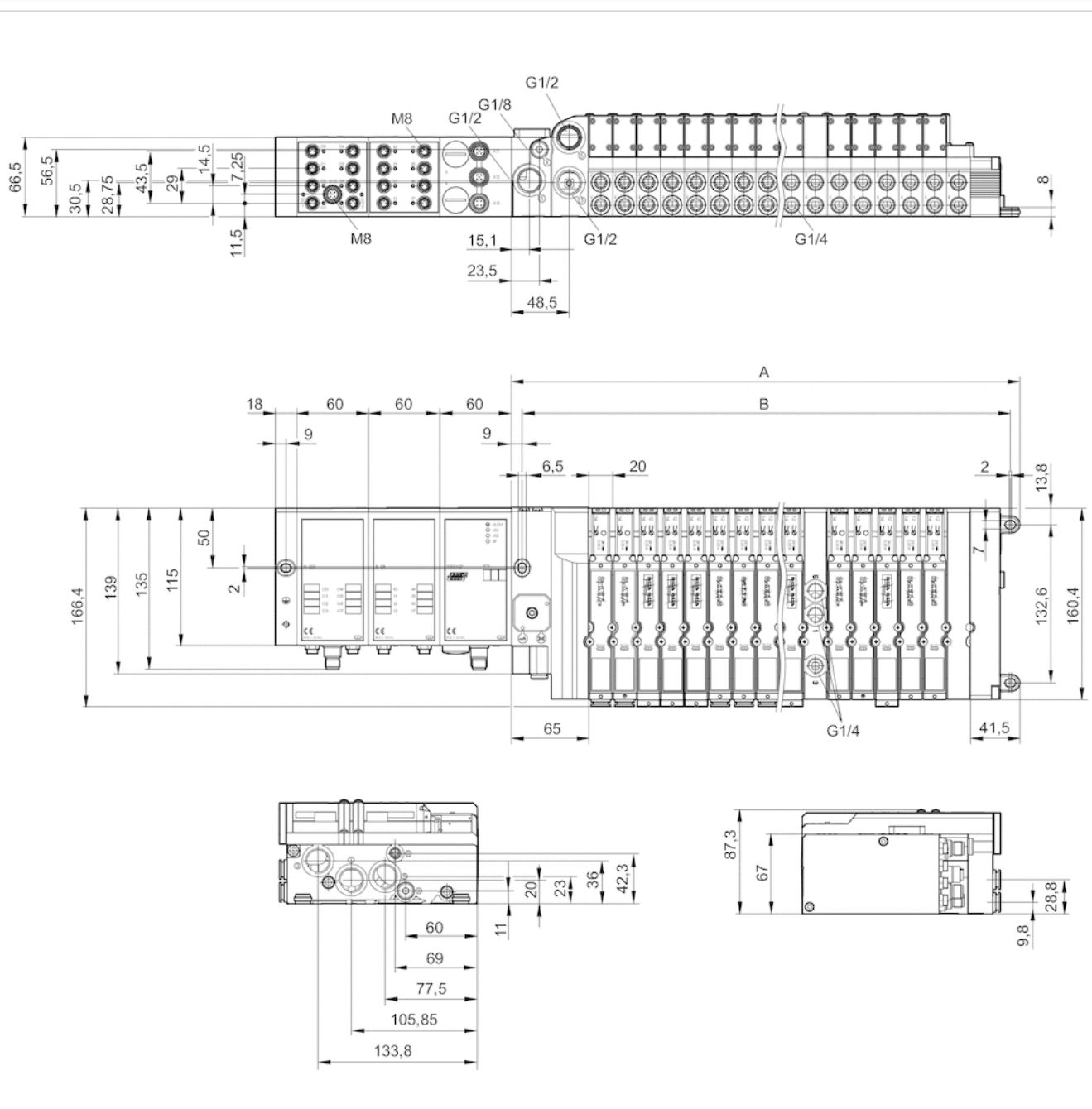


Dimensions

n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5
5	206.5	189.5
6	226.5	209.5
7	246.5	229.5
8	266.5	249.5
9	286.5	269.5
10	306.5	289.5
11	326.5	309.5
12	346.5	329.5
13	366.5	349.5
14	386.5	369.5
15	406.5	389.5
16	426.5	409.5

n = number of base plates

Dimensions



Dimensions

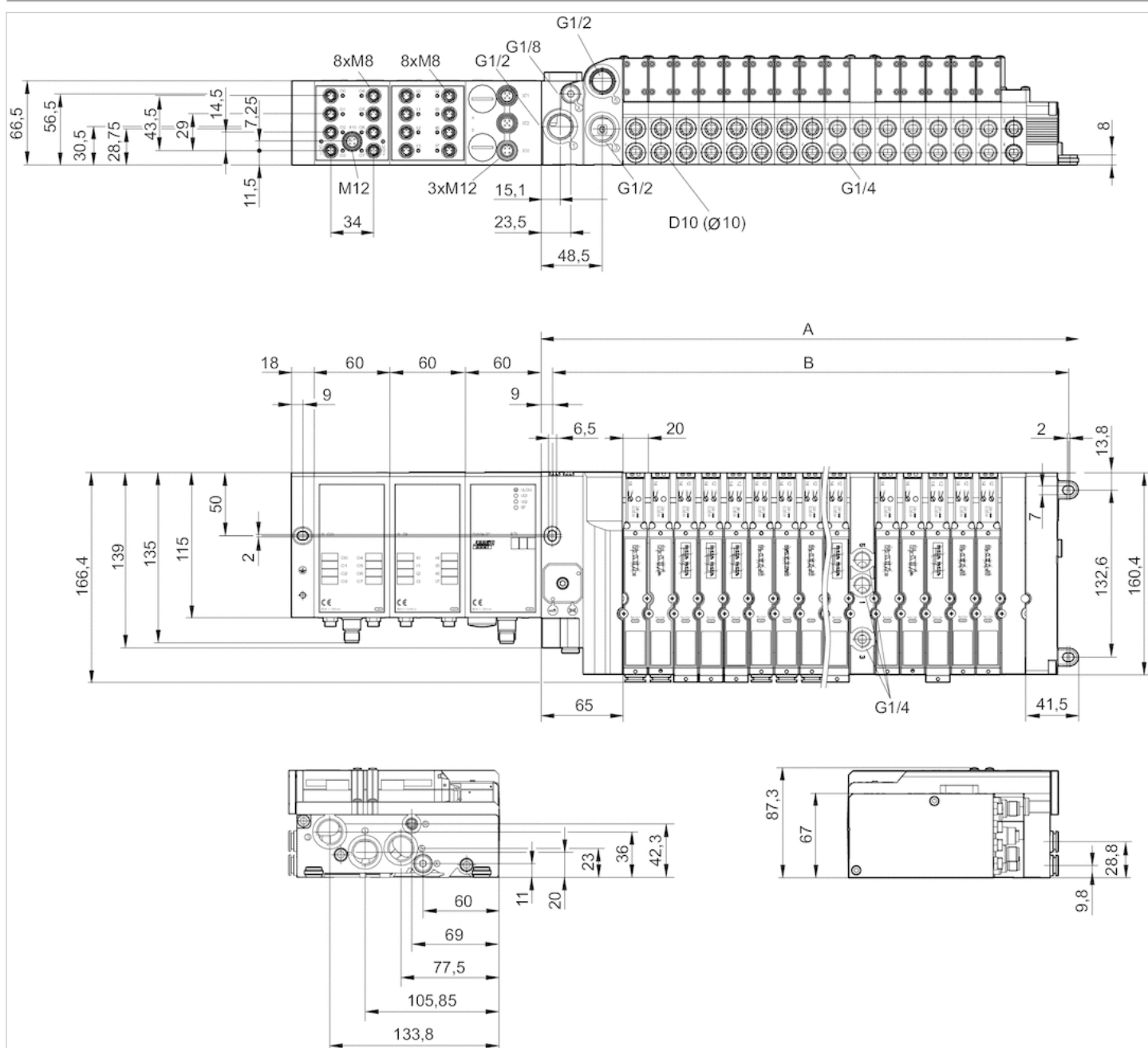
n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5
5	206.5	189.5
6	226.5	209.5
7	246.5	229.5
8	266.5	249.5

n	A	B
9	286.5	269.5
10	306.5	289.5
11	326.5	309.5
12	346.5	329.5
13	366.5	349.5
14	386.5	369.5
15	406.5	389.5
16	426.5	409.5

n = number of base plates

Dimensions

Dimensions Connection with diagnosis (DDL)

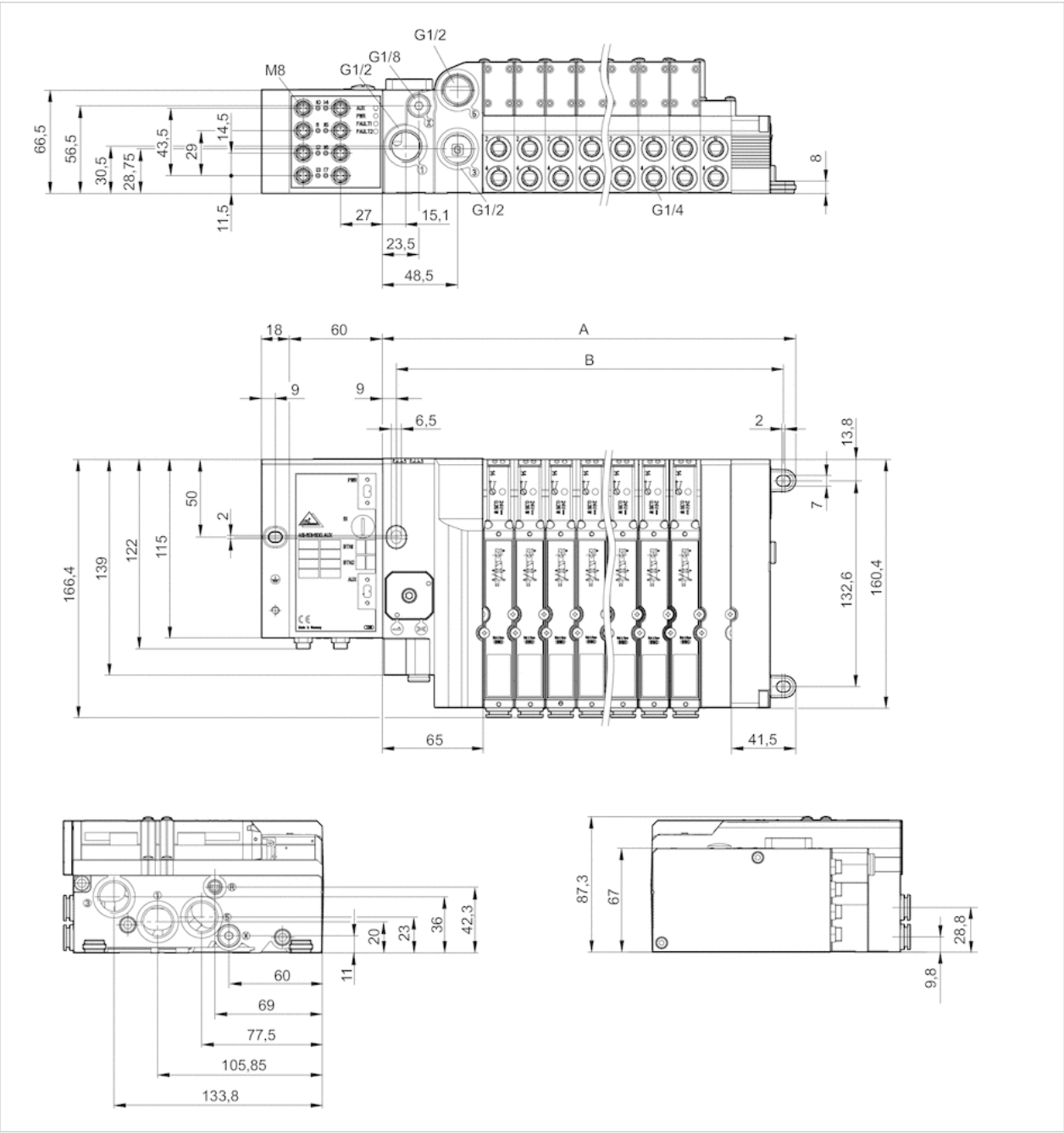


Dimensions

n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5
5	206.5	189.5
6	226.5	209.5
7	246.5	229.5
8	266.5	249.5
9	286.5	269.5
10	306.5	289.5
11	326.5	309.5
12	346.5	329.5

n = number of base plates

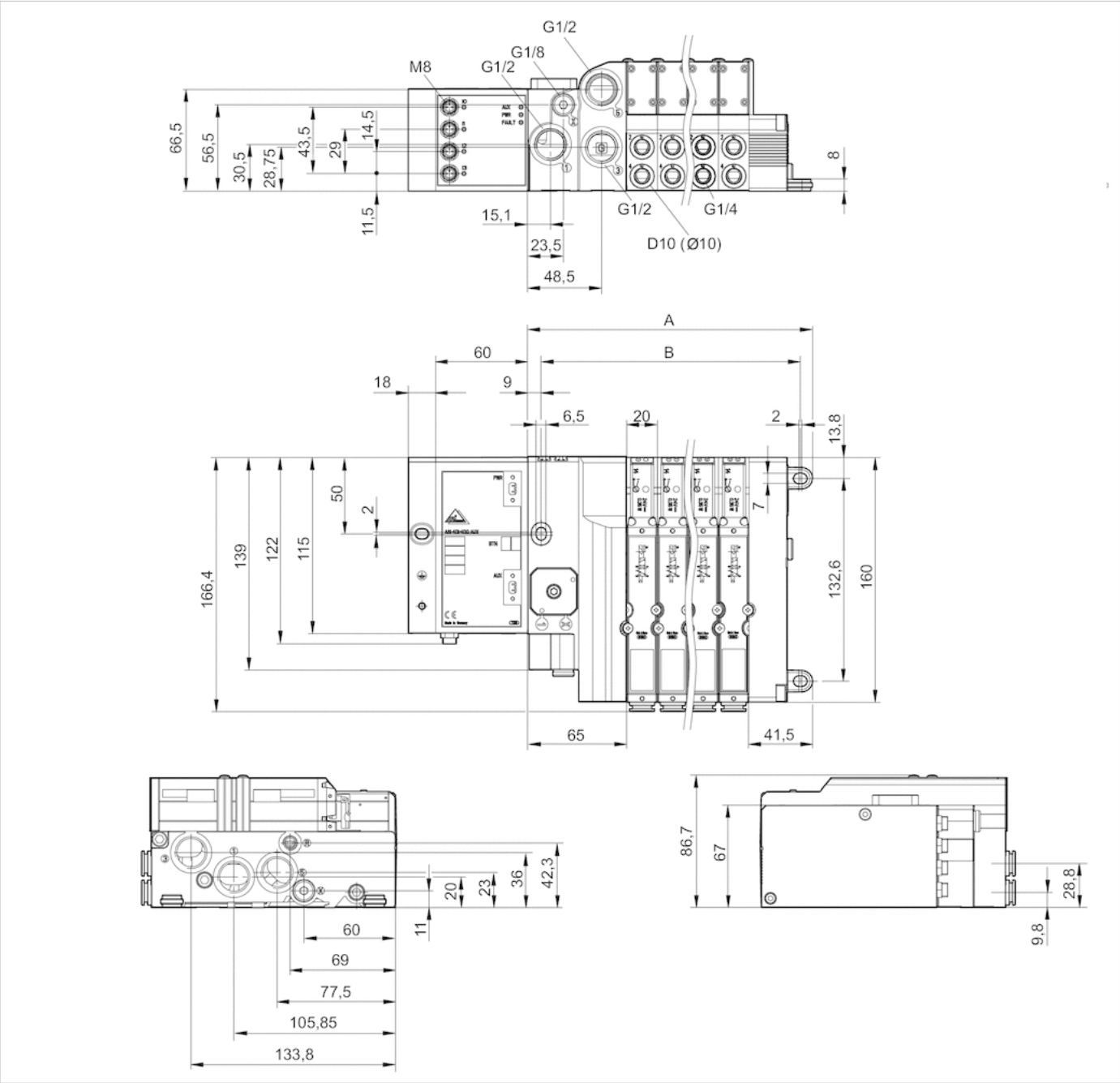
Dimensions 8DI/8DO-AUX



n = number of base plates

Dimensions

Dimensions 4DI/4DO-AUX



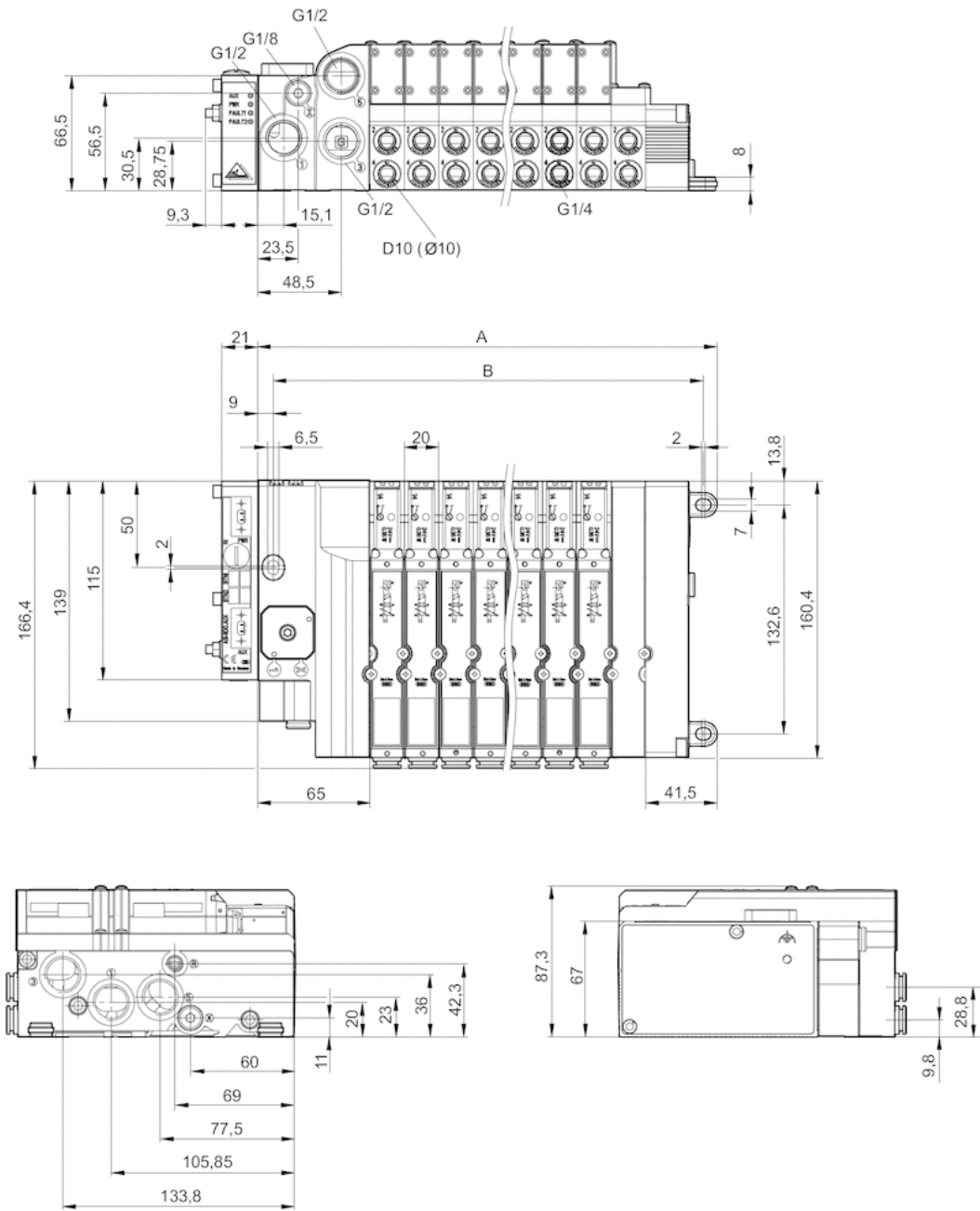
Dimensions

n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5

n = number of base plates

Dimensions

8DO-AUX



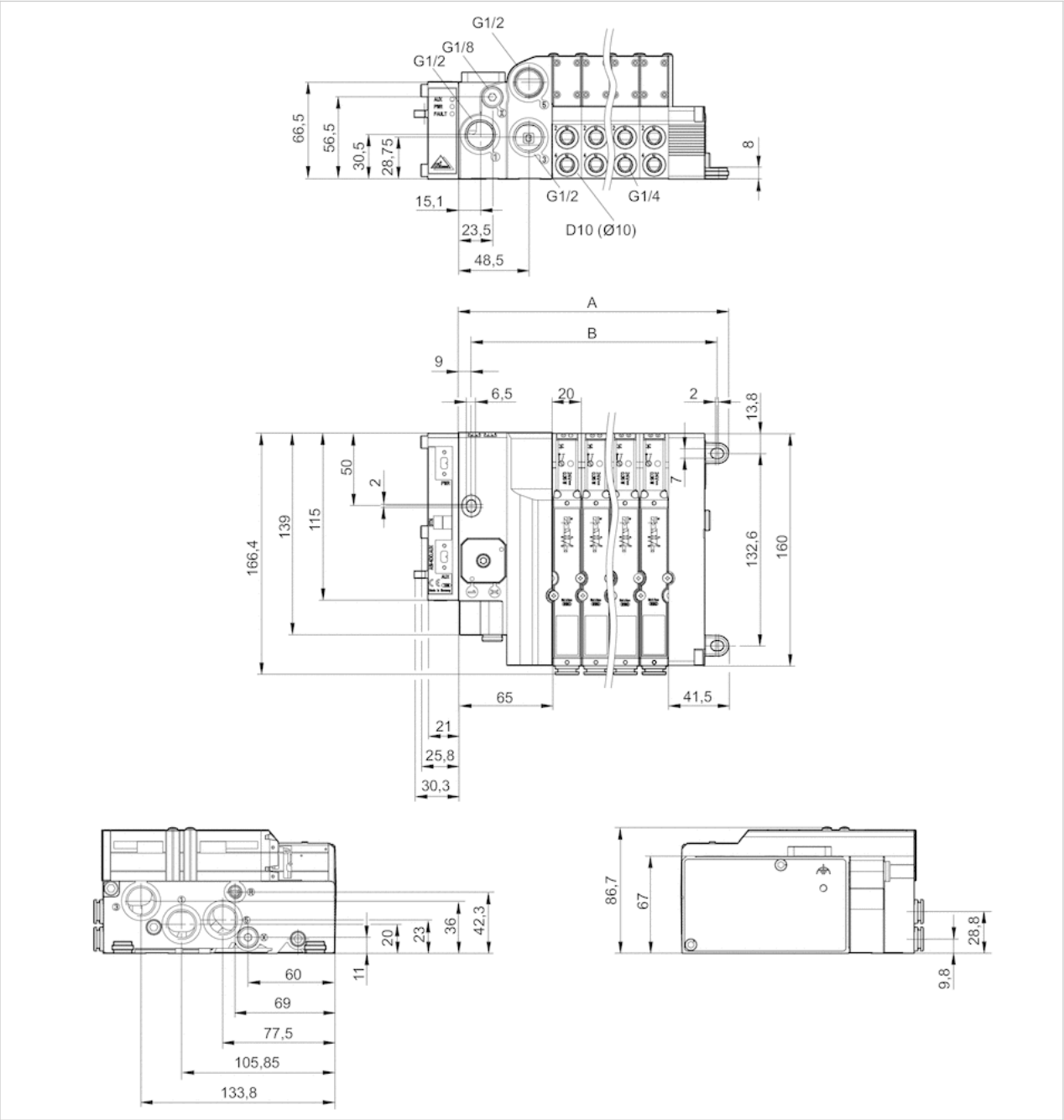
Dimensions

n	A	B
1	126.5	109.5
2	146.5	129.5
3	166.5	149.5
4	186.5	169.5
5	206.5	189.5
6	226.5	209.5
7	246.5	229.5
8	266.5	249.5

n = number of base plates

Dimensions

4DO-RUX



2x3/2-directional valve, Series HF02-LG

- For series : HF02-LG
- 2x3/2
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- Plate connection
- Manual override : with detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class,with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	33 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.			MO	Operationalvoltage	Voltage tolerance
				DC	DC
0820056101		NC/NC		24 V	-15% / +20%
0820056201		NO/NO		24 V	-15% / +20%
0820056301		NC/NO		24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820056101	0,35 W	0,4	5,87 l/(s*bar)
0820056201	0,35 W	0,4	5,87 l/(s*bar)
0820056301	0,35 W	0,4	5,87 l/(s*bar)

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

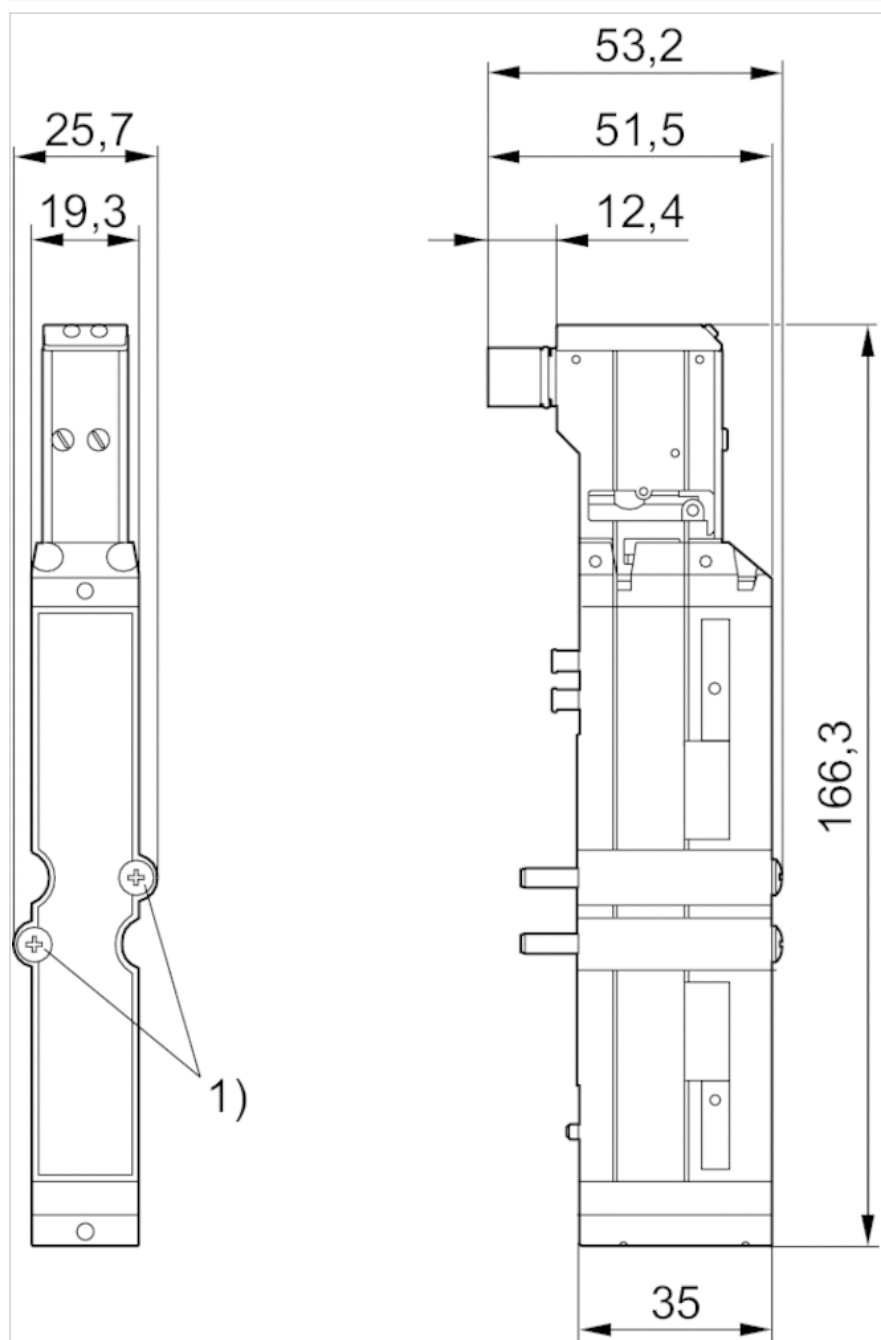
The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

2x3/2-directional valve, Series HF02-LG

- For series : HF02-LG
- 3/2
- $Q_n = 1400 \text{ l/min}$
- Pilot valve width : 16 mm
- Plate connection
- Manual override : without detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class,with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	33 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.			MO	Operationalvoltage	Voltage tolerance
				DC	DC
0820056102		NC/NC		24 V	-15% / +20%
0820056202		NO/NO		24 V	-15% / +20%
0820056302		NC/NO		24 V	-15% / +20%

Part No.	Power consumption	Flow conductance	Flow conductance
	DC	b	C-value
0820056102	0,35 W	0,4	5,87 l/(s*bar)
0820056202	0,35 W	0,4	5,87 l/(s*bar)
0820056302	0,35 W	0,4	5,87 l/(s*bar)

Nominal flow Q_n at 6 bar and $\Delta p = 1 \text{ bar}$, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

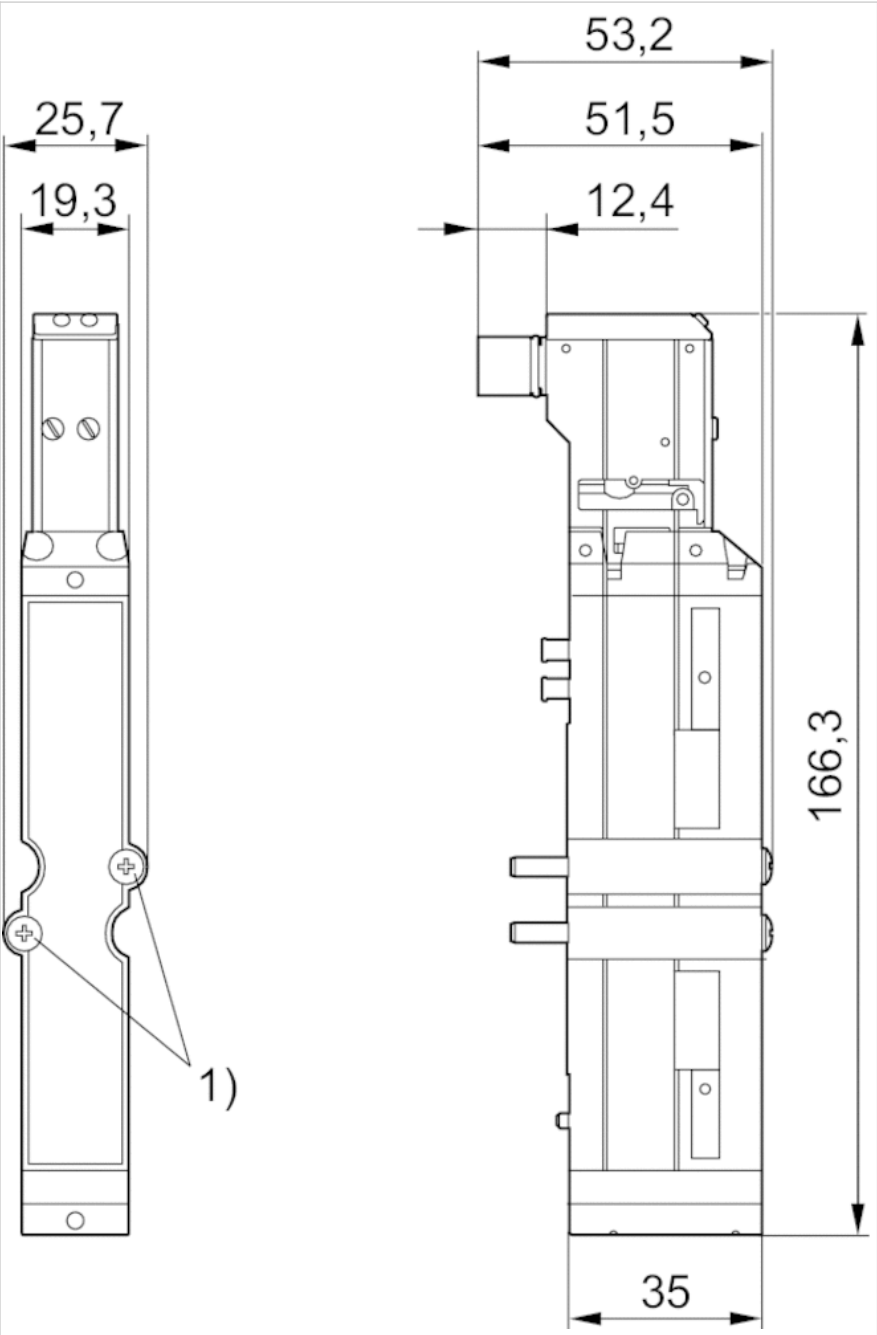
The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

5/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/2
- $Q_n = 1400 \text{ l/min}$
- Pilot valve width : 16 mm
- Plate connection
- Can be assembled into blocks
- Manual override : with detent
- single solenoid
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	2,5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 ... 5 mg/m^3
Nominal flow Q_n	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class,with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.		MO	Operational voltage	Voltage tolerance	Power consumption
			DC	DC	DC
0820056051			24 V	-15% / +20%	0,35 W
0820056501			24 V	-15% / +20%	0,35 W
0820056001			24 V	-15% / +20%	0,35 W

Part No.	Flow conductance	Flow conductance	Typ. switch-on time	Typ. switch-off time
	b	C-value		
0820056051	0,38	6,13 l/(s*bar)	13 ms	40 ms
0820056501	0,38	6,13 l/(s*bar)	13 ms	15 ms
0820056001	0,38	6,13 l/(s*bar)	19 ms	30 ms

Nominal flow Q_n at 6 bar and $\Delta p = 1 \text{ bar}$, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
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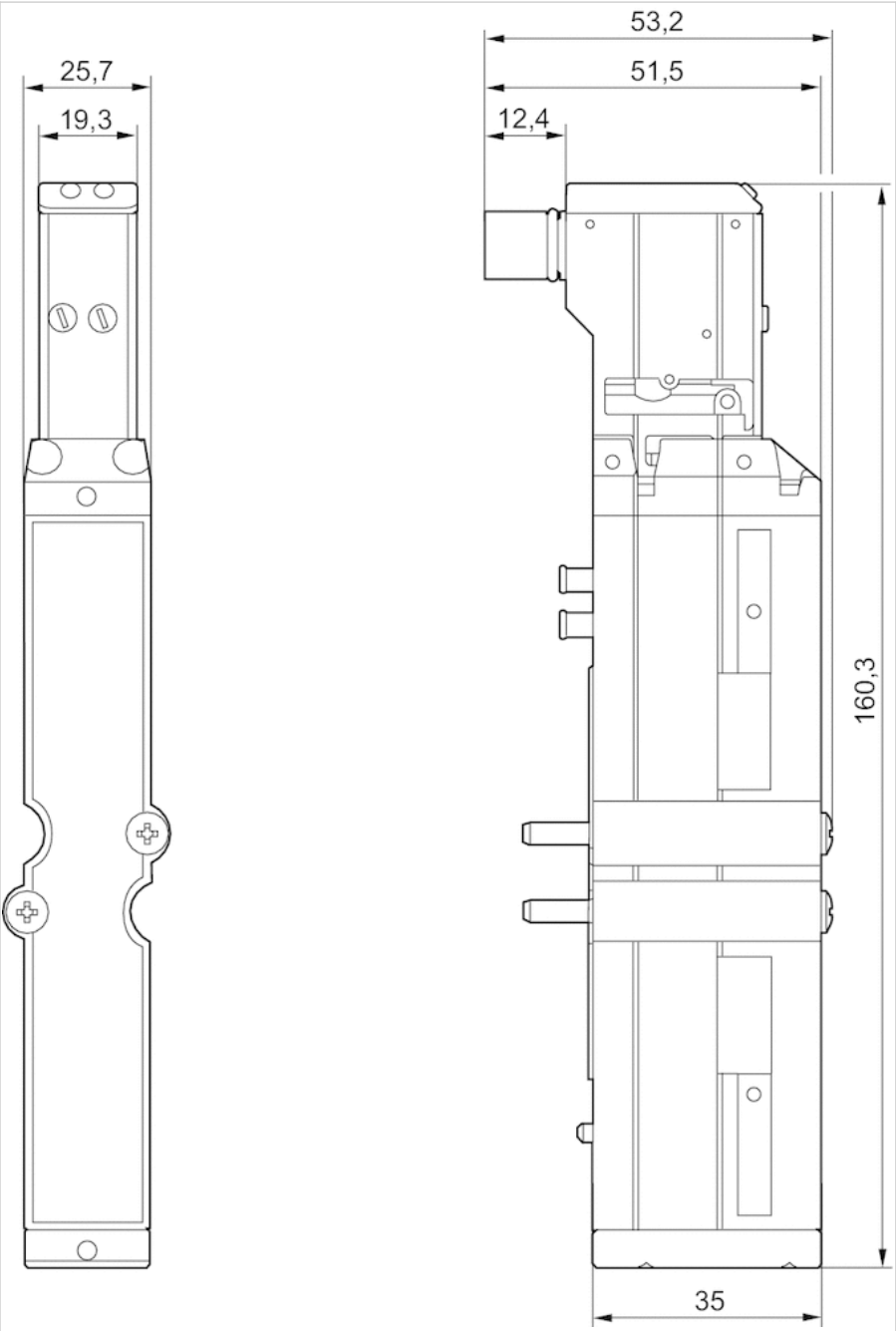
The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

5/2-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/2
- $Q_n = 1400 \text{ l/min}$
- Pilot valve width : 16 mm
- Plate connection
- Manual override : without detent
- single solenoid, Double solenoid
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	2,5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Q_n	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class, with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.		MO	Operational voltage	Voltage tolerance	Power consumption
			DC	DC	DC
0820056052			24 V	-15% / +20%	0,35 W
0820056502			24 V	-15% / +20%	0,35 W
0820056002			24 V	-15% / +20%	0,35 W

Part No.	Flow conductance	Flow conductance	Typ. switch-on time	Typ. switch-off time
	b	C-value		
0820056052	0,38	6,13 l/(s*bar)	13 ms	40 ms
0820056502	0,38	6,13 l/(s*bar)	13 ms	15 ms
0820056002	0,38	6,13 l/(s*bar)	19 ms	30 ms

Nominal flow Q_n at 6 bar and $\Delta p = 1 \text{ bar}$, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

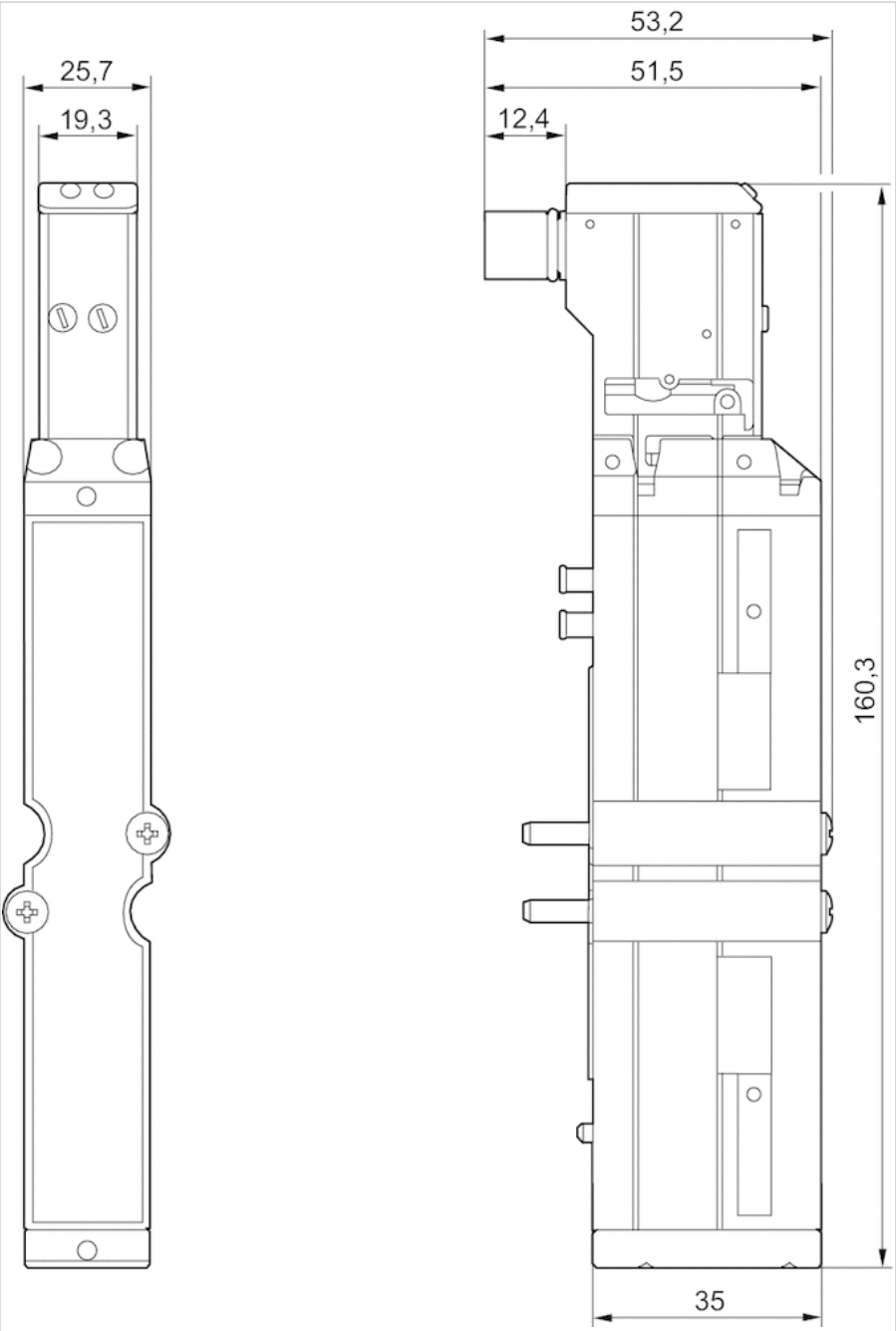
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

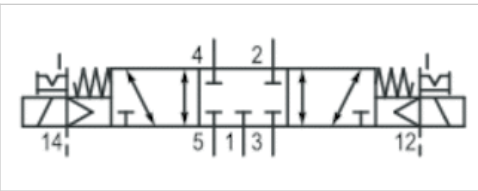
Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

5/3-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/3
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : with detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	2,5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class,with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.	MO	Operationalvoltage	Voltage tolerance	Power consumption
		DC	DC	DC
0820056601		24 V	-15% / +20%	0,35 W

Part No.	Flow conductance	Flow conductance
	b	C-value
0820056601	0,4	5,87 l/(s*bar)

Nominal flow Qn at 6 bar and Δp = 1 bar

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

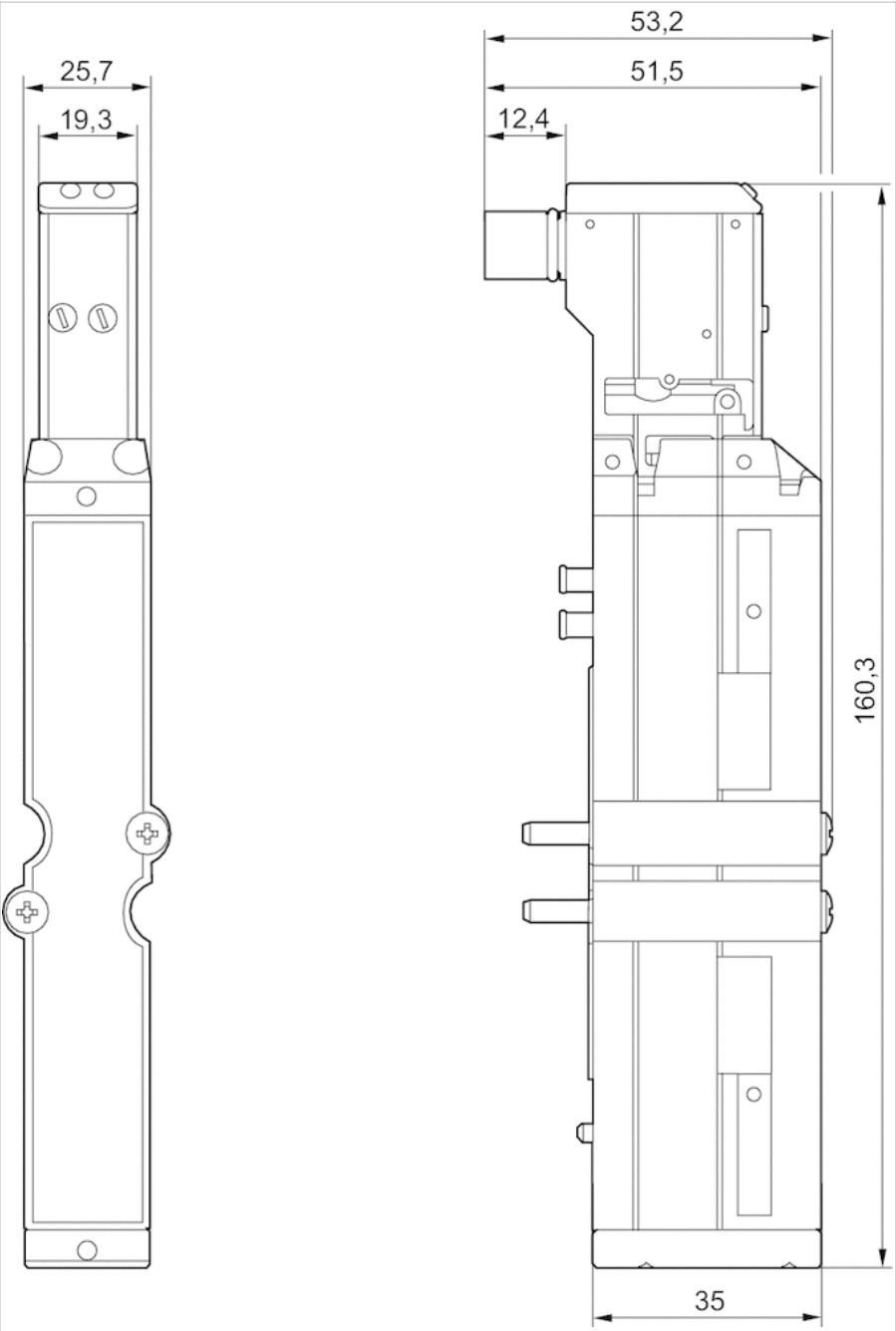
The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

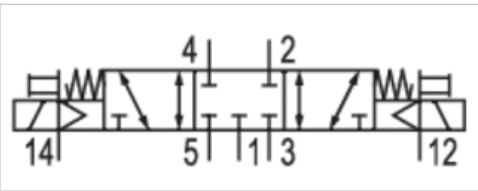
Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

5/3-directional valve, Series HF02-LG

- For series : HF02-LG, CL03
- 5/3
- Qn = 1400 l/min
- Pilot valve width : 16 mm
- closed center
- Plate connection
- Manual override : without detent
- Pilot : External, Internal



Version	Spool valve, positive overlapping
Activation	Electrically
Pilot	External, Internal
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Certificates	UR (Underwriters Laboratories)
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	2,5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	1400 l/min
Pilot control exhaust	With collective pilot air exhaust
Protection class,with connection	IP65
Protective circuit	Z-diode
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	15 ms
mounting screws	cross recessed DIN EN ISO 4757-Z2
Mounting screw tightening torque	1,3 Nm
Weight	0,144 kg

Technical data

Part No.	MO	Operationalvoltage	Voltage tolerance	Power consumption
		DC	DC	DC
0820056602		24 V	-15% / +20%	0,35 W

Part No.	Flow conductance	Flow conductance
	b	C-value
0820056602	0,4	5,87 l/(s*bar)

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

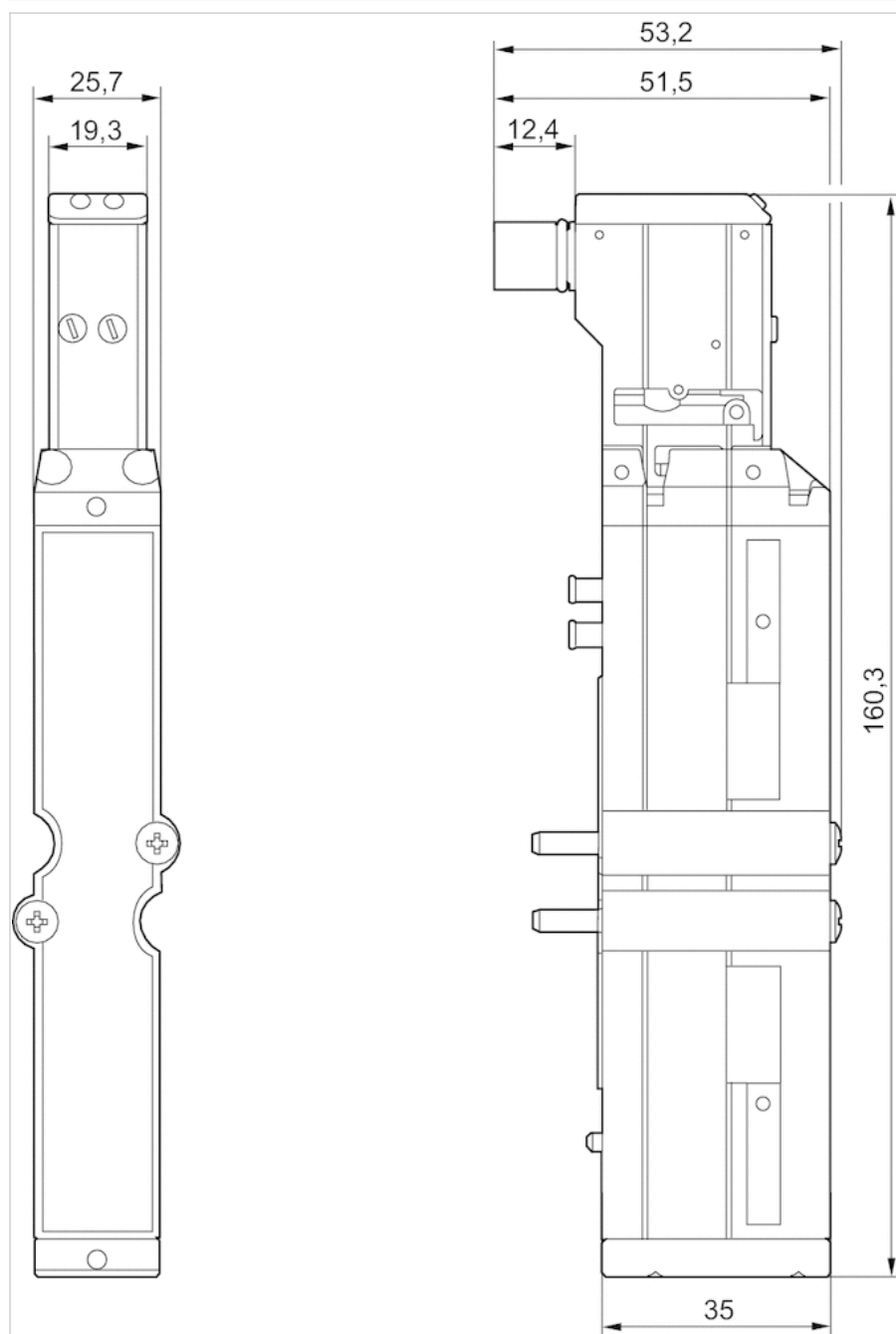
The UL certification refers to the pilot valve.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber, Hydrogenated acrylonitrile butadiene rubber

Dimensions

Dimensions



1) Mounting screw: X-slot DIN EN ISO 4757-Z2tightening torque for mounting screw [Nm]: 1.3

CKD kit, Series HF02-LG

- Compressed air connection output Ø 10
- Can be assembled into blocks
- Single base plate principle
- With collective pilot air exhaust



Nominal flow Q _n	1400 l/min
Working pressure min./max.	-0,9 ... 10 bar
Control pressure min./max.	2,5 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Number of valve positions,max.	1
Grid dimension	19,8 mm
Exhaust (3,5)	With directional exhaust (3/5)
Exhaust type	Ports separated
Tightening torque for mounting screws	1,1 Nm

Technical data

Part No.	Type
R412009658	2 x end plates with push-in fittings 1, 3, 5, R, X and 1 x base plate with push-in fittings 2, 4, Ø10
R412009659	2 x end plates with push-in fittings 1, 3, 5, R, X and 1 x base plate with push-in fittings 2, 4, G1/4

Part No.	Compressed air connection Input [1]	Compressed air connection Output [2 / 4]
R412009658	G 1/2	Ø 10
R412009659	G 1/2	Ø 10

Part No.	Compressed air connection Exhaust [3 / 5]	Compressed air connection Pilot connection [X]
R412009658	G 1/2	G 1/8
R412009659	G 1/2	G 1/4

Part No.	Compressed air connection Pilot control exhaust [R]
R412009658	G 1/8
R412009659	G 1/8

1, 3 and 5 = G 1/2, 15 mm deep↔2 and 4 = push-in fitting Ø 10 mm or thread connection G 1/4↔X and R = G 1/8, 8 mm deep

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).
The internal and external pneumatic pilots can be adjusted using the change-over plate on the left end plate. For internal pilot, working pressure is limited to 2.5 bar ... 10 bar .

Technical information

Material	
Base plate	Aluminum
push-in fitting	Brass, nickel-plated
Seal	Nitrile rubber

Blanking plate

- for HF02-LG



Working pressure min./max.	-0,9 ... 10 bar
Ambient temperature min./max.	-5 ... 50 °C
Medium	Compressed air
Mounting screw	cross recessed DIN EN ISO 4757-Z2
Tightening torque for mounting screws	1,1 Nm
Weight	0,093 kg

Technical data

Part No.	Type	Delivery unit
1825A00087	Blanking plate, incl. sealing kit, 1x mounting screws	1 piece

Technical information

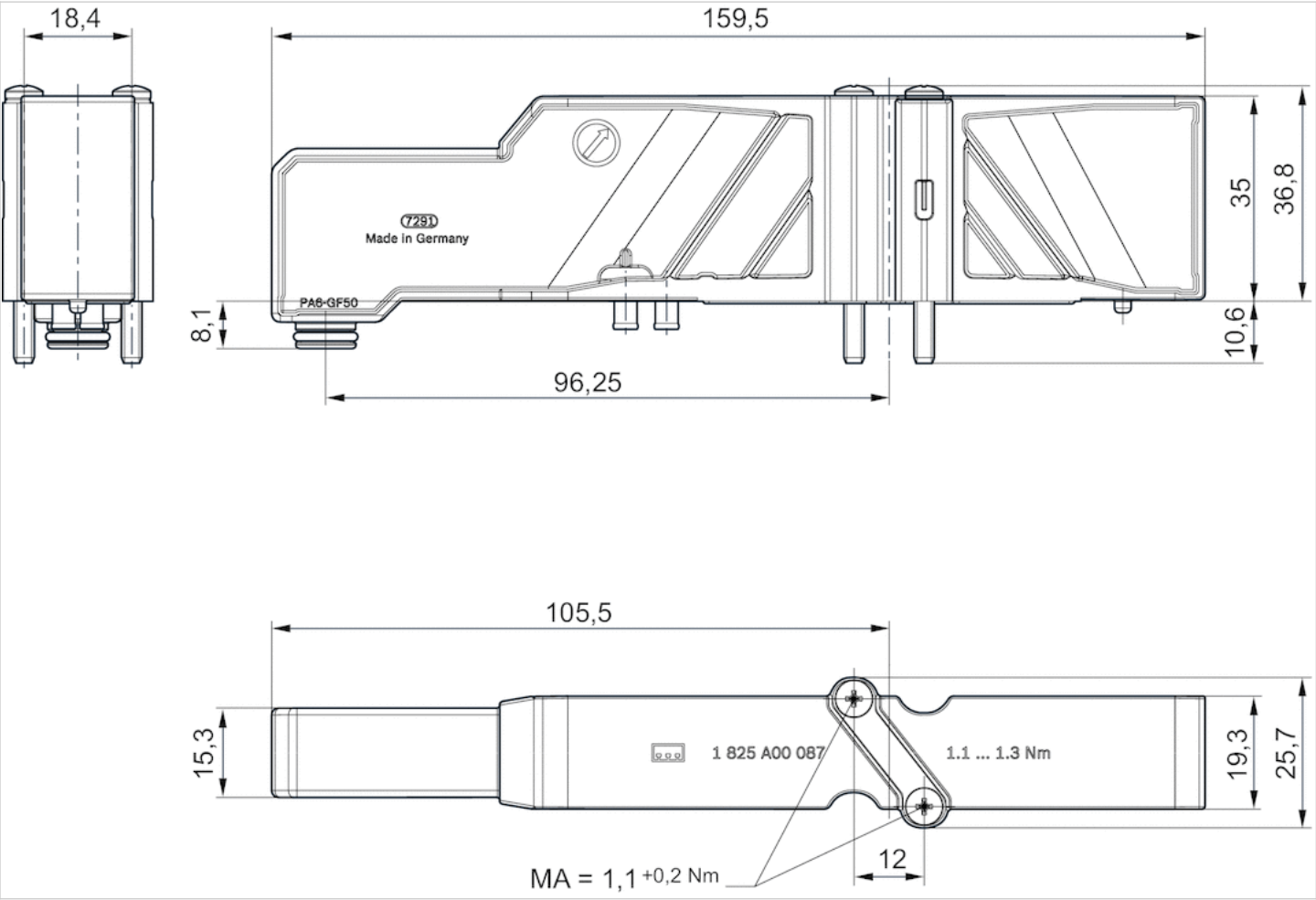
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Base plate	Polyamide
Seal	Nitrile rubber

Dimensions

Dimensions



QR1-S standard series

- Blanking plug
- pin bushing
- Ø 4, Ø 6, Ø 8, Ø 10, Ø 12, Ø 14, Ø 16
- QR1-S-RBS



Working pressure min./max.

-0,95 ... 10 bar

Ambient temperature min./max.

0 ... 60 °C

Weight

See table below

Technical data

Part No.	Port G	Delivery unit	Weight
2123204000	Ø 4	20 piece	0,001 kg
2123206000	Ø 6	20 piece	0,001 kg
2123208000	Ø 8	20 piece	0,001 kg
2123210000	Ø 10	20 piece	0,002 kg
2123212000	Ø 12	20 piece	0,004 kg
2123214000	Ø 14	10 piece	0,005 kg
R412005331	Ø 16	10 piece	0,004 kg

Weight per piece

Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined

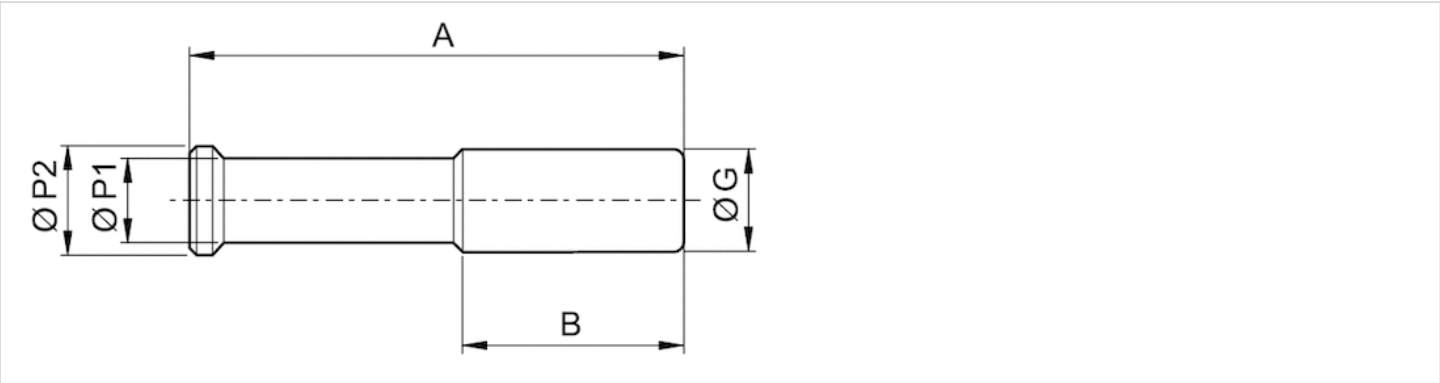
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Material	nickel-plated
Housing	Polybutyleneterephthalate

Dimensions

Dimensions



Dimensions

Part No.	Port G	A	B	Ø P1	Ø P2
2123204000	Ø 4	28	16	3	4
2123206000	Ø 6	32	17	4	6
2123208000	Ø 8	39	25	5	9
2123210000	Ø 10	42	21	8	10
2123212000	Ø 12	44	30	8	12
2123214000	Ø 14	45	24.6	8	14
R412005331	Ø16	46	24.8	10	16

Base plate, Series HF02-LG



Weight

See table below

Technical data

Part No.	Type	Delivery unit
1827A10631	Base plate for 1 valve, push-in fitting Ø 10 mm, 3 tie rod extensions and 1 sealing kit	1 piece
1827010649	Base plate for 3 valves, push-in fitting Ø 10 mm, 3 tie rod extensions and 1 sealing kit	1 piece
1827A10650	Base plate for 5 valves, push-in fitting Ø 10 mm, 3 tie rod extensions and 1 sealing kit	5 piece
1827010640	Base plate for 1 valve, thread connection G1/4, 3 tie rod extensions, and 1 sealing kit	1 piece

Part No.	Weight
1827A10631	0,154 kg
1827010649	0,39 kg
1827A10650	0,644 kg
1827010640	0,142 kg

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Multipole plug, series CON-MP

- open cable ends, 25-pin
- with cable
- unshielded



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	24 V, DC
Protection class	IP67
Wire cross-section	0,22 mm ²
Weight	See table below

Technical data

Part No.	Electrical connection	Max. current	Number of wires	Cable sheath
	1			
R419500454	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyvinyl chloride
R419500455	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyvinyl chloride
R419500456	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyvinyl chloride
R412022156	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyvinyl chloride
R419500457	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyurethane
R419500458	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyurethane
R419500459	Socket, D-Sub, 25-pin, straight, 180°	3 A	25	Polyurethane
R419500460	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyvinyl chloride
R419500461	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyvinyl chloride
R419500462	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyvinyl chloride
R412022352	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyvinyl chloride
R419500463	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyurethane
R419500464	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyurethane
R419500465	Socket, D-Sub, 25-pin, angled, 90°	3 A	25	Polyurethane

Part No.	Bending radius min.	Cable-Ø	Cable length	Weight		Fig.
R419500454	-	8,5 mm	3 m	0,465 kg	-	Fig. 1
R419500455	-	8,5 mm	5 m	0,731 kg	-	Fig. 1
R419500456	-	8,5 mm	10 m	1,373 kg	-	Fig. 1
R412022156	-	8,5 mm	15 m	2,002 kg	-	Fig. 1
R419500457	78,75 mm	10,5 mm	3 m	0,51 kg	1)	Fig. 1
R419500458	78,75 mm	10,5 mm	5 m	0,789 kg	1)	Fig. 1
R419500459	78,75 mm	10,5 mm	10 m	1,491 kg	1)	Fig. 1
R419500460	-	8,5 mm	3 m	0,46 kg	-	Fig. 2
R419500461	-	8,5 mm	5 m	0,707 kg	-	Fig. 2
R419500462	-	8,5 mm	10 m	1,334 kg	-	Fig. 2
R412022352	-	8,5 mm	15 m	1,982 kg	-	Fig. 2

Part No.	Bending radius min.	Cable-Ø	Cable length	Weight		Fig.
R419500463	78,75 mm	10,5 mm	3 m	0,484 kg	1)	Fig. 2
R419500464	78,75 mm	10,5 mm	5 m	0,767 kg	1)	Fig. 2
R419500465	78,75 mm	10,5 mm	10 m	1,461 kg	1)	Fig. 2

1) suitable for dynamic laying

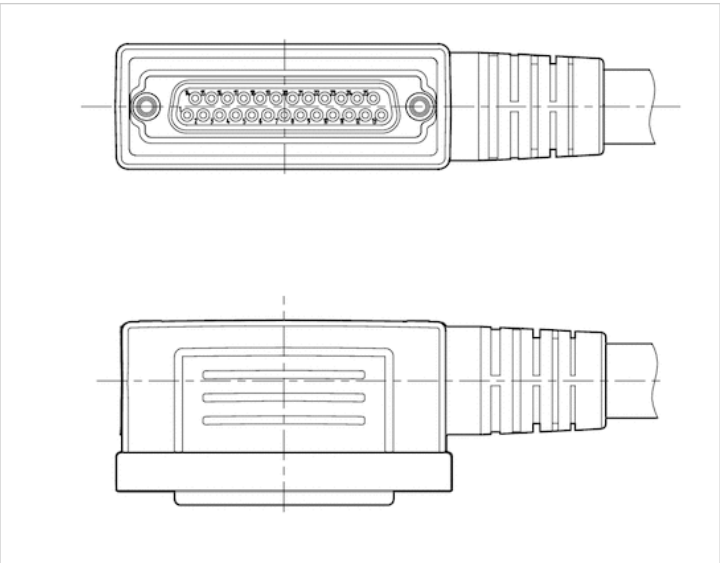
Technical information

The specified protection class is only valid in assembled and tested state.
 The increased wire cross-section of pin 25 is 0.82 mm².

Technical information

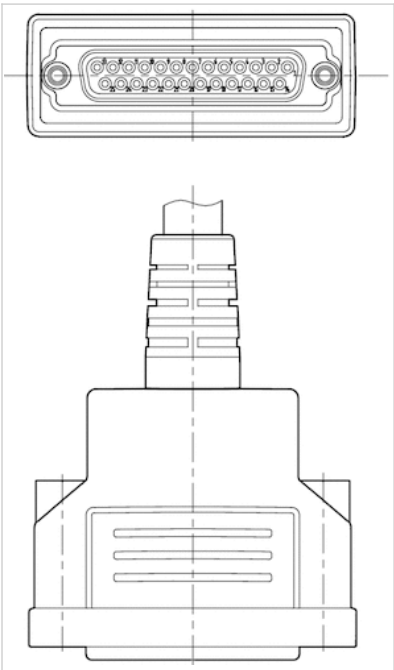
Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyvinyl chloride, Polyurethane

Fig. 2



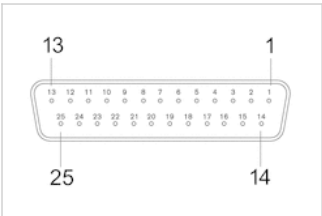
Dimensions

Fig. 1



Pin assignments

PIN assignment and cable colors cable identification as per DIN 47100



Socket

Pin	1	2	3	4	5	6	7	8	9
Color	white	brown	green	yellow	gray	pink	blue	red	black

10	11	12	13	14	15
violet	gray/pink	red/blue	white/green	brown/green	white/yellow

16	17	18	19	20	21
yellow/brown	white/gray	gray/brown	white/pink	pink/brown	white/blue

22	23	24	25
brown/blue	white/red	brown/red	white/black

Multipole plug, series CON-MP

- Socket, D-Sub, 44-pin, Angled/straight, 90°/180°
- unshielded



Connection type	Soldering/crimping
Ambient temperature min./max.	-5 ... 50 °C
Operational voltage	24 V, DC
Protection class	IP65
Weight	0,042 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
R412011259	3 A	4 / 16 mm

Scope of delivery: multipole plug including 1 tube nut and 1 elbow fitting

Technical information

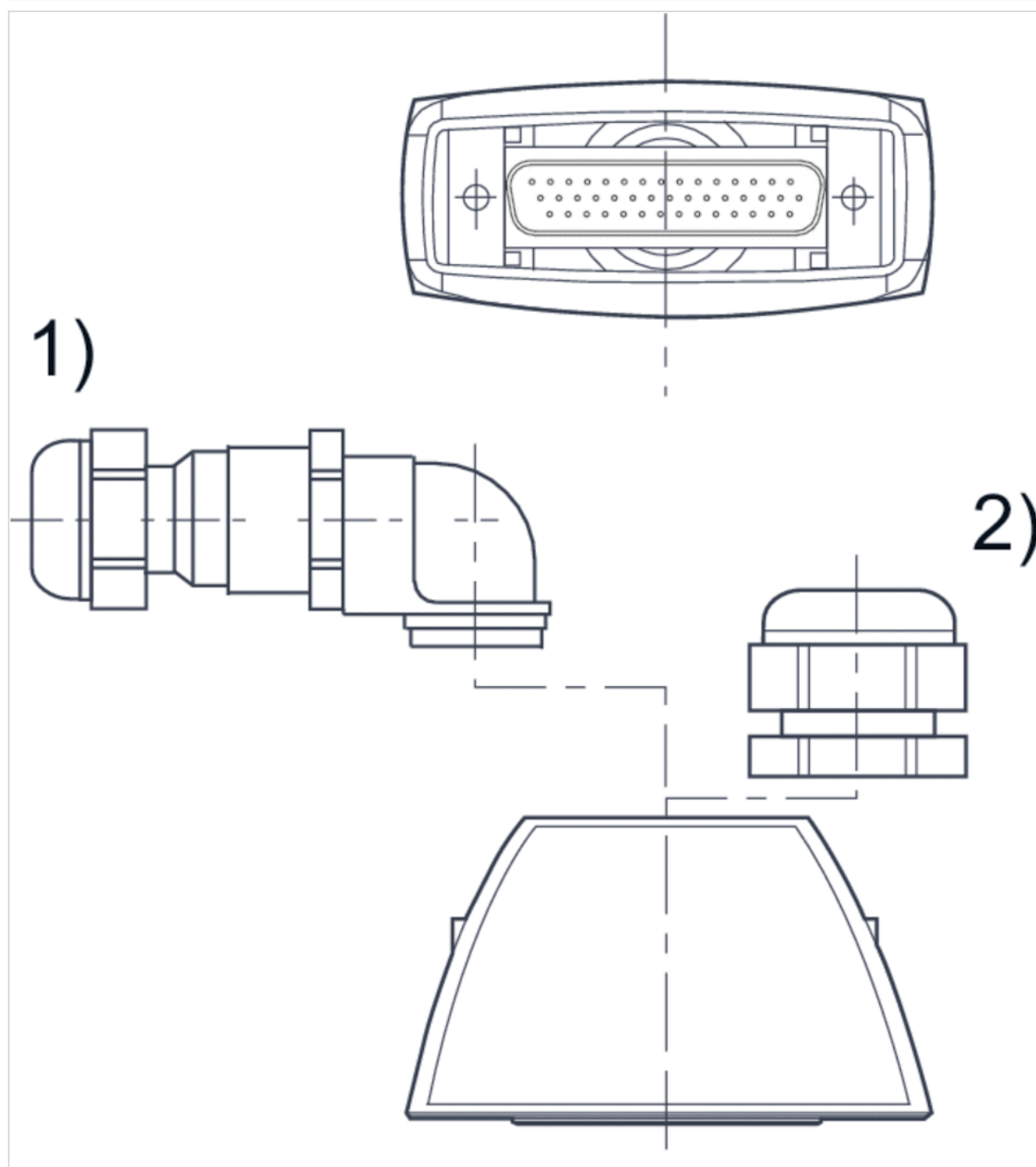
The specified protection class is only valid in assembled and tested state.
Note for use with VS LP04: The plug can only be used in the LP04 versions with a side electrical connection.

Technical information

Material	
Housing	Polyamide

Dimensions

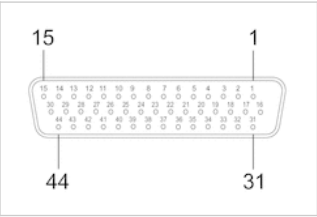
Dimensions



- 1) Elbow fitting
- 2) tube nut

Pin assignments

PIN assignment and cable colors cable identification as per DIN 47100



Socket



Multipole plug, series CON-MP

- open cable ends, 44-pin
- with cable
- unshielded



Ambient temperature min./max.	See table below
Operational voltage	24 V, DC
Protection class	IP65
Wire cross-section	0,22 mm ²
Weight	See table below

Technical data

Part No.	Ambient temperature min./max.	Electrical connection	Max. current	Number of wires
		1		
R419500466	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500467	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500468	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500469	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500470	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500471	-20 ... 80 °C	Socket, D-Sub, 44-pin, straight, 180°	3 A	44
R419500472	-20 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44
R419500473	-20 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44
R419500474	-20 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44
R419500475	-20 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44
R419500476	-20 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44
R419500477	-25 ... 80 °C	Socket, D-Sub, 44-pin, angled, 90°	3 A	44

Part No.	Cable sheath	Bending radius min.	Cable-Ø	Cable length	Weight		Fig.
R419500466	Polyvinyl chloride	-	10,7 mm	3 m	0,632 kg	-	Fig. 1
R419500467	Polyvinyl chloride	-	10,7 mm	5 m	1,013 kg	-	Fig. 1
R419500468	Polyvinyl chloride	-	10,7 mm	10 m	1,934 kg	-	Fig. 1
R419500469	Polyurethane	97,5 mm	13 mm	3 m	0,722 kg	1)	Fig. 1
R419500470	Polyurethane	97,5 mm	13 mm	5 m	1,146 kg	1)	Fig. 1
R419500471	Polyurethane	97,5 mm	13 mm	10 m	2,288 kg	1)	Fig. 1
R419500472	Polyvinyl chloride	-	10,7 mm	3 m	0,61 kg	-	Fig. 2
R419500473	Polyvinyl chloride	-	10,7 mm	5 m	1,001 kg	-	Fig. 2
R419500474	Polyvinyl chloride	-	10,7 mm	10 m	1,913 kg	-	Fig. 2
R419500475	Polyurethane	97,5 mm	13 mm	3 m	0,747 kg	1)	Fig. 2
R419500476	Polyurethane	97,5 mm	13 mm	5 m	1,178 kg	1)	Fig. 2
R419500477	Polyurethane	97,5 mm	13 mm	10 m	2,295 kg	1)	Fig. 2

1) suitable for dynamic laying

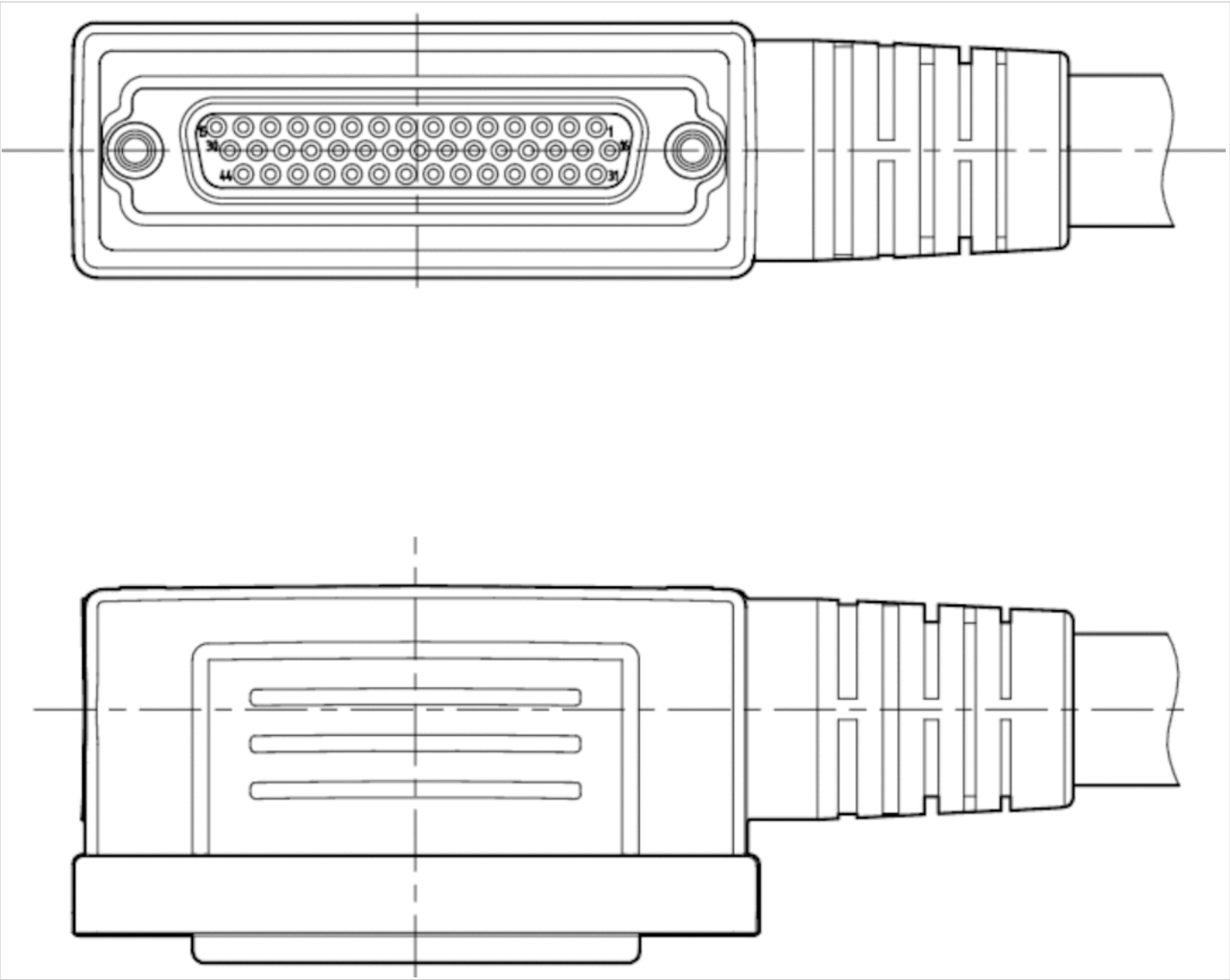
Technical information

The specified protection class is only valid in assembled and tested state.

Technical information

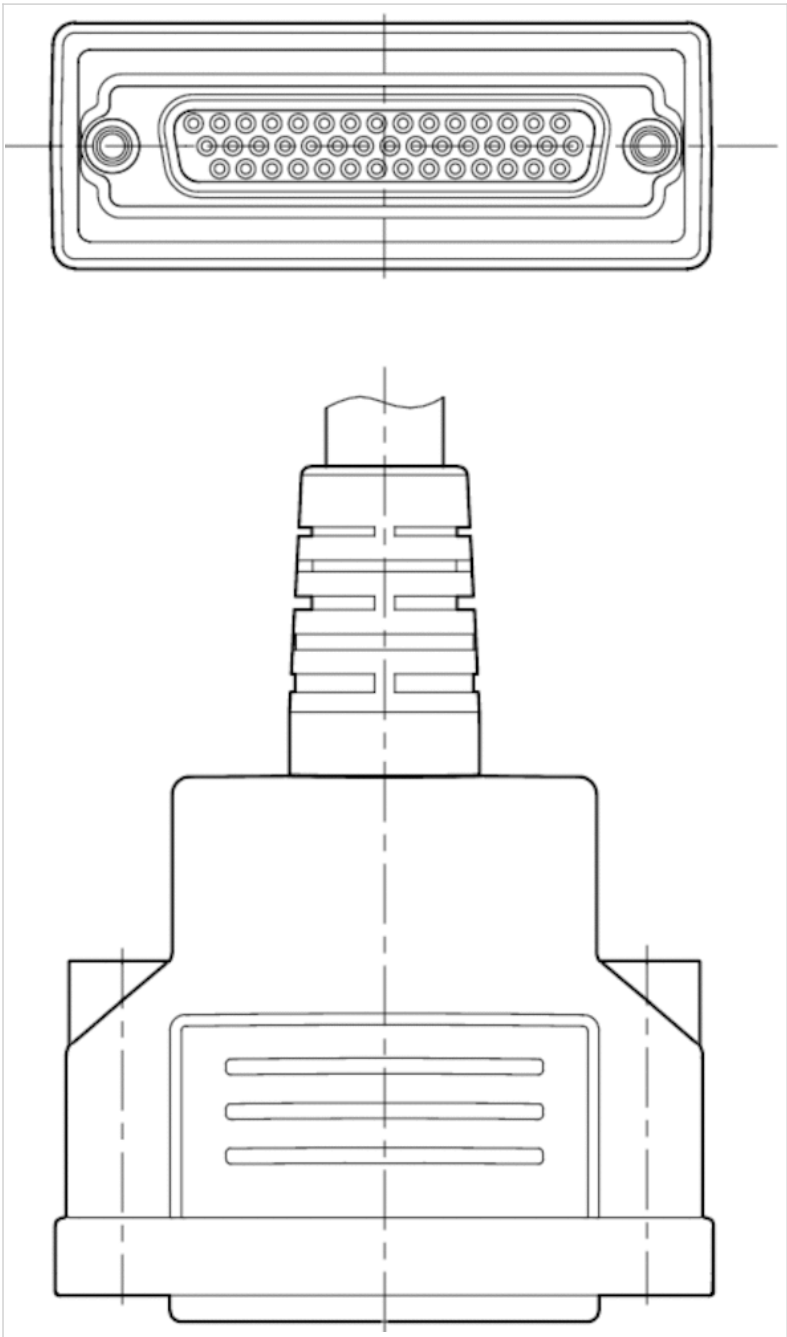
Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyvinyl chloride, Polyurethane

Fig. 2



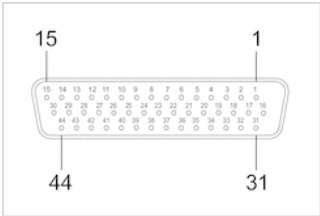
Dimensions

Fig. 1



Pin assignments

PIN assignment and cable colors cable identification as per DIN 47100



Socket

Pin	1	2	3	4	5	6	7	8	9
Color	white	brown	green	yellow	gray	pink	blue	red	black
10	11	12	13	14	15				
violet	gray/pink	red/blue	white/green	brown/green	white/yellow				
16	17	18	19	20	21				
yellow/brown	white/gray	gray/brown	white/pink	pink/brown	white/blue				
22	23	24	25	26	27				
brown/blue	white/red	brown/red	white/black	brown/black	gray/green				
28	29	30	31	32	33				
yellow/gray	pink/green	yellow/pink	green/blue	yellow/blue	green/red				

Plug box



Weight

0,12 kg

Technical data

Part No.	Type
1827030206	Plug box, 25-pin, complete
R412013379	HD multipole plug box, 44-pin, complete

Further accessories:, For valve plug connectors, contact bridges, plugs and cables, etc., see the Chapter “Electrical connection technologies”., For connectors, plastic tubing, etc., see the Chapter "Pneumatic connection technologies"., Field bus connections can be found in the correspondent chapter.

Series BDC

- B-design
- Bus coupler with driver
- Field bus protocol PROFIBUS DP, CANopen, CANopen sb, DeviceNet, EtherCAT, sercos III



Version	Bus coupler with driver
Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-15% / +20%
Power consumption electronics	0,05 A
Operating voltage, actuators	24 V DC
Total current for actuators	3 A
Protection class	IP65
Number of solenoid coils,max.	32
Max. power consumption per coil	0,1 mA
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	IEC 61000-6-2
Weight	0,29 kg

Technical data

Part No.	Field bus protocol	Port
		1
R412008537	PROFIBUS DP	Plug (male), M12x1, 5-pin, B-coded
R412008538	CANopen	Plug (male), M12x1, 5-pin, A-coded
R412008990	CANopen sb	Plug (male), M12x1, 5-pin, A-coded
R412008539	DeviceNet	Plug (male), M12x1, 5-pin, A-coded
R412009573	EtherCAT	Socket (female), M12x1, 5-pin, D-coded
R412009516	sercos III	Socket (female), M12x1, 5-pin, D-coded

Part No.	Port	power supply
	2	
R412008537	Socket (female), M12x1, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412008538	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008990	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008539	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412009573	Socket (female), M12x1, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412009516	Socket (female), M12x1, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded

Scope of delivery incl. 2 screws and seal, The following operating instructions can be found in the Media Center for:↔PROFIBUS DP: R412009414↔CANopen /-sb: R412009415↔DeviceNet: R412009416↔EtherCAT: R412012792↔sercos III: R412012610

Technical information

Max. number of valves: 16 double solenoid or 32 single solenoid

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

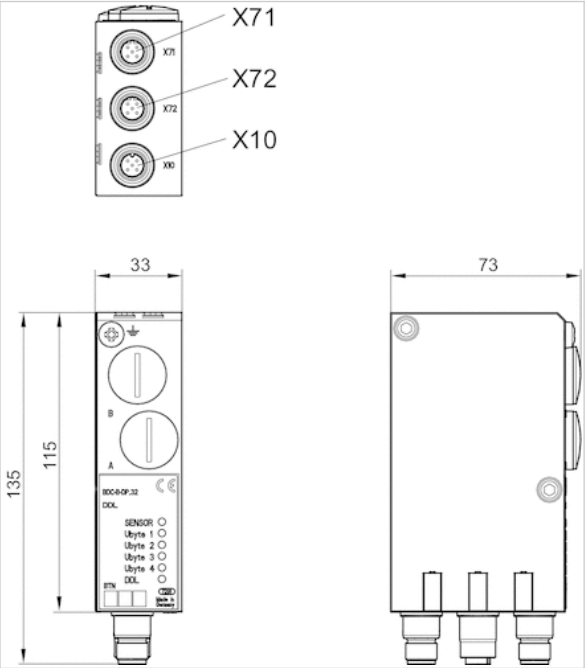
Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications.

Technical information

Material	
Housing	Die-cast aluminum

Dimensions

Dimensions



X71 = Bus IN
 X72 = Bus OUT
 X10 = power supply

Series AS-i, B-design

- B-design
- Bus coupler with driver
- Yellow AS-i flat cable
- Field bus protocol AS-i



Version	Bus coupler with driver
Ambient temperature min./max.	0 ... 50 °C
Operating voltage, actuators	24 V DC
Protection class	IP65
Max. power consumption per coil	0,03 mA
Port, Valve system	Socket, 2.0 mm strip, 2x13-pin
ID Code / ID2 Code	F / E
I/O Code	8
Generic emission standard in accordance with norm	EN 50295
Generic immunity standard in accordance with norm	EN 50295
Weight	0,14 kg
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Field bus protocol	Port	power supply
		1	
R412003488	AS-i	Yellow AS-i flat cable	Black AS-i flat cable
R412006761	AS-i	Yellow AS-i flat cable	Black AS-i flat cable

Part No.	Number of outputs for valve coils	Power consumption electronics	Fig.
R412003488	4	0,05 A	Fig. 1
R412006761	8	0,08 A	Fig. 2

Scope of delivery incl. seal and mounting screws, The following operating instructions can be found in the Media Center for: AS-i: R499050017

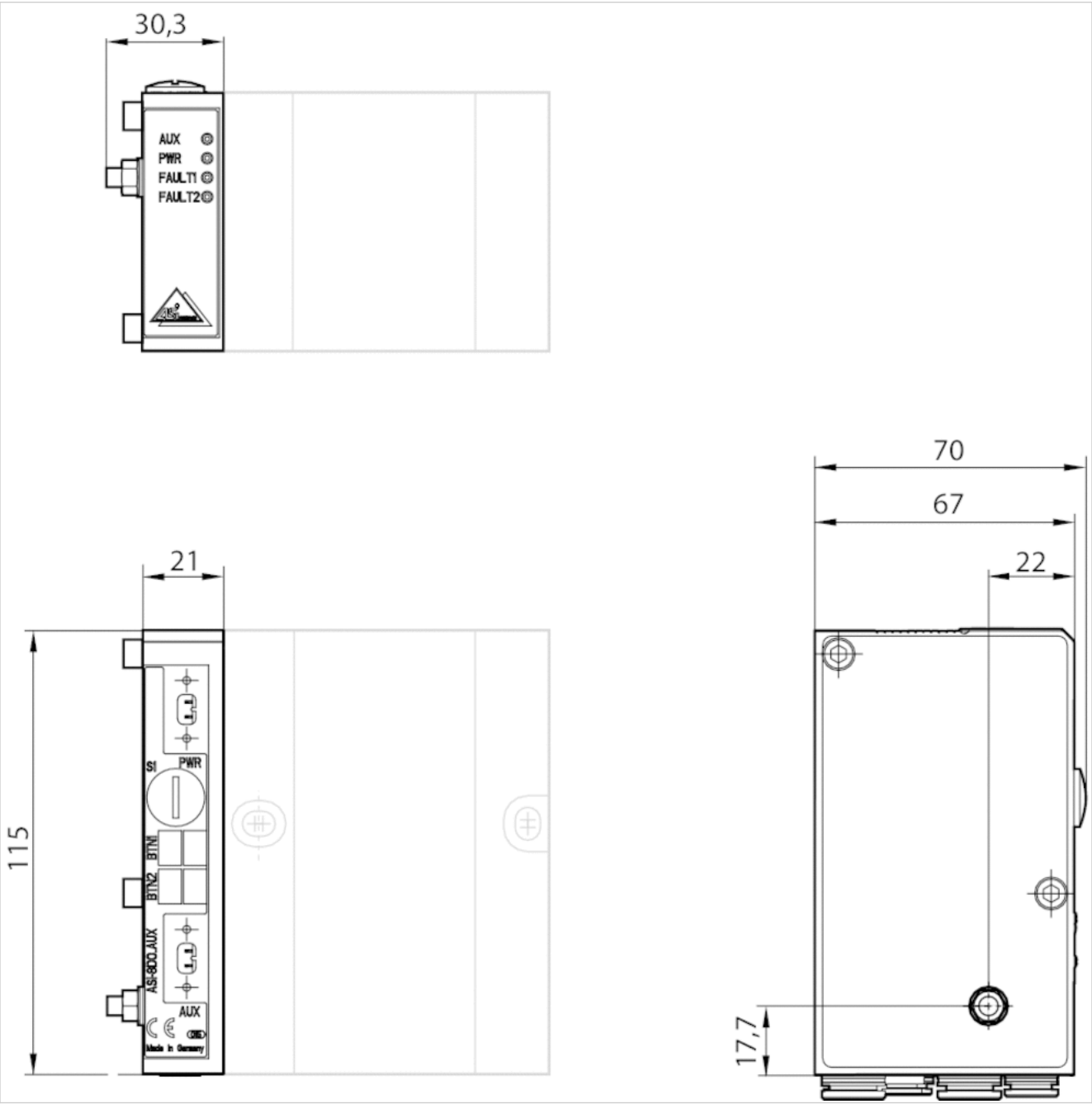
Technical information

Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications. You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

Material	
Housing	Aluminum, Die-cast aluminum

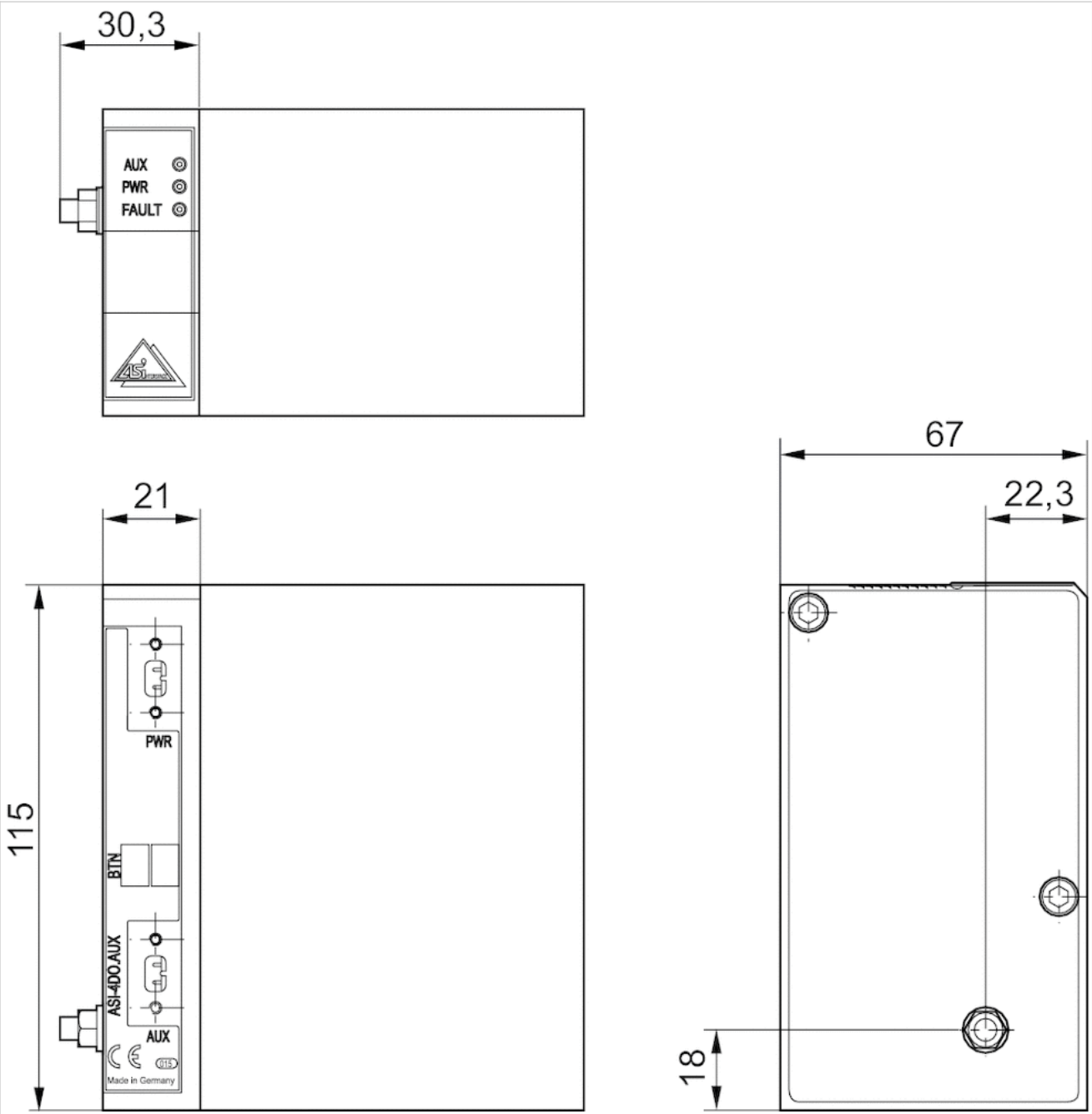
Fig. 2



AS-i, 8DO-AUX

Dimensions

Fig. 1



AS-i, 4DO-AUX

Series AS-i, B-design

- B-design
- Bus coupler with driver
- Yellow AS-i flat cable
- Field bus protocol AS i with inputs



Version	Bus coupler with driver
Ambient temperature min./max.	0 ... 50 °C
Operating voltage, actuators	24 V DC
Protection class	IP65
Max. power consumption per coil	0,03 mA
Port, Valve system	Socket, 2.0 mm strip, 2x13-pin
ID Code / ID2 Code	F / E
I/O connection	input or output, Socket, M8
I/O Code	7
Generic emission standard in accordance with norm	EN 50295
Generic immunity standard in accordance with norm	EN 50295

The delivered product may vary from that in the illustration.

Technical data

Part No.	Field bus protocol	Port	power supply	Number of inputs
		1		
R412003486	AS i with inputs	Yellow AS-i flat cable	Black AS-i flat cable	8
R412003487	AS i with inputs	Yellow AS-i flat cable	Black AS-i flat cable	4

Part No.	Number of outputs for valve coils	I/O connection	I/O connection
			Number
R412003486	8	input or output, Socket, M8	8
R412003487	4	input or output, Socket, M8	4

Part No.	Power consumption electronics	Fig.
R412003486	0,1 A	Fig. 2
R412003487	0,05 A	Fig. 1

Scope of delivery incl. 2 tie rod extensions and seal, The following operating instructions can be found in the Media Center for: AS-i: R499050017

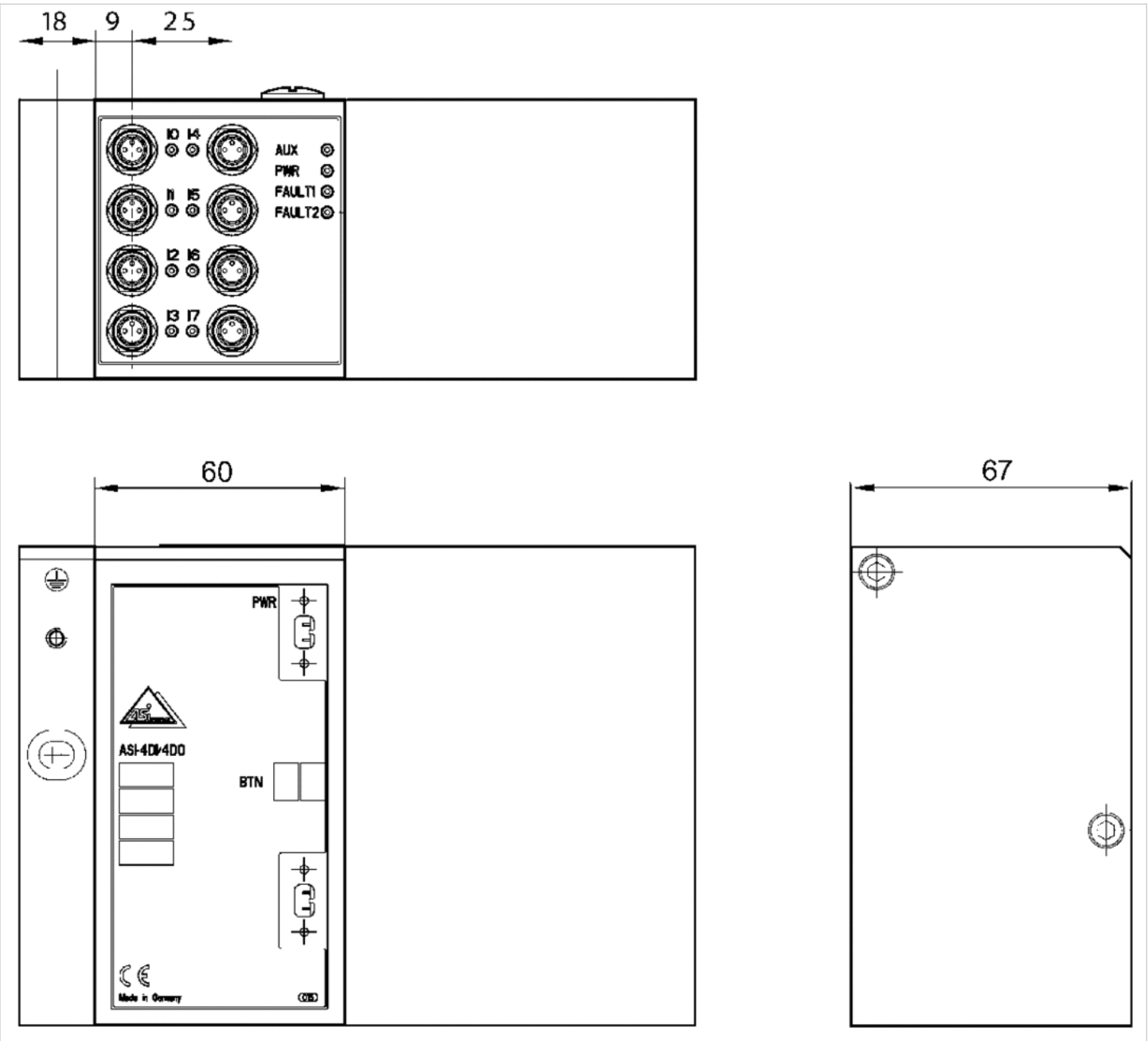
Technical information

Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications. You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

Material	
Housing	Aluminum

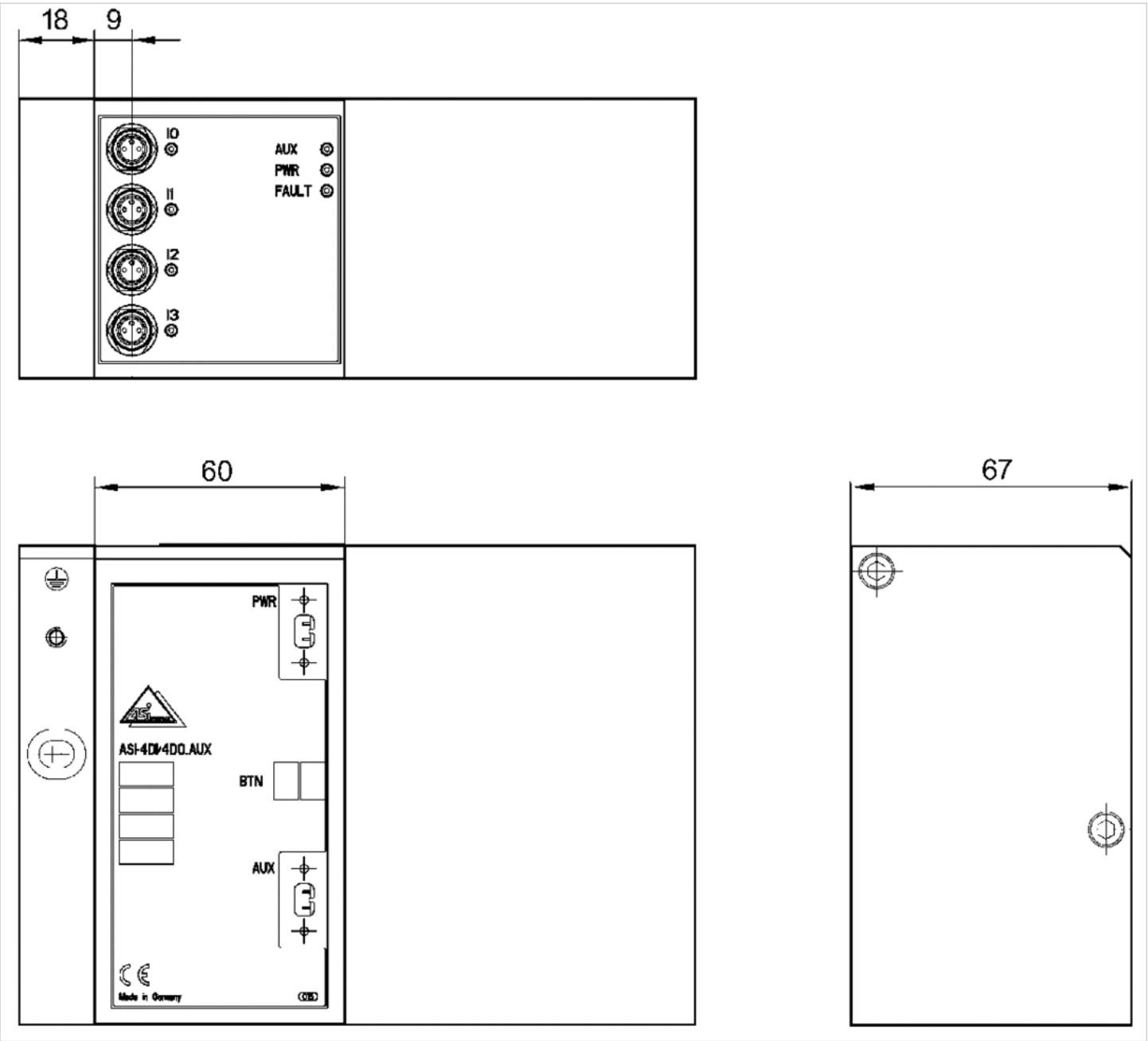
Fig. 2



8DI/8DO-AUX

Dimensions

Fig. 1



4DI/4DO-AUX

Series AES

- Field bus connection with I/O functionality
- D-design
- Bus coupler
- Field bus protocol PROFIBUS DP, CANopen, DeviceNet, EtherNET/IP, PROFINET IO, EtherCAT, POWERLINK



Version	Bus coupler
Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0,1 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Cycle time at 256 bits	1 ms
Number of solenoid coils,max.	128
Number of valve positions,max.	64
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit, Undervoltage
I/O module extension,max.	10
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	See table below

Technical data

Part No.	Field bus protocol	Port
		1
R412018218	PROFIBUS DP	Plug (male), M12, 5-pin, B-coded
R412018220	CANopen	Plug (male), M12, 5-pin, A-coded
R412018221	DeviceNet	Plug (male), M12, 5-pin, A-coded
R412018222	EtherNET/IP	Socket (female), M12, 4-pin, D-coded
R412018223	PROFINET IO	Socket (female), M12, 4-pin, D-coded
R412018225	EtherCAT	Socket (female), M12, 4-pin, D-coded
R412018226	POWERLINK	Socket (female), M12, 4-pin, D-coded

Part No.	Port	power supply
	2	
R412018218	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412018220	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412018221	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412018222	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412018223	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412018225	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412018226	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded

Part No.	Weight
R412018218	0,16 kg
R412018220	0,16 kg
R412018221	0,16 kg
R412018222	0,175 kg
R412018223	0,175 kg
R412018225	0,175 kg
R412018226	0,175 kg

Scope of delivery: Incl. mounting screws 3x

Technical information

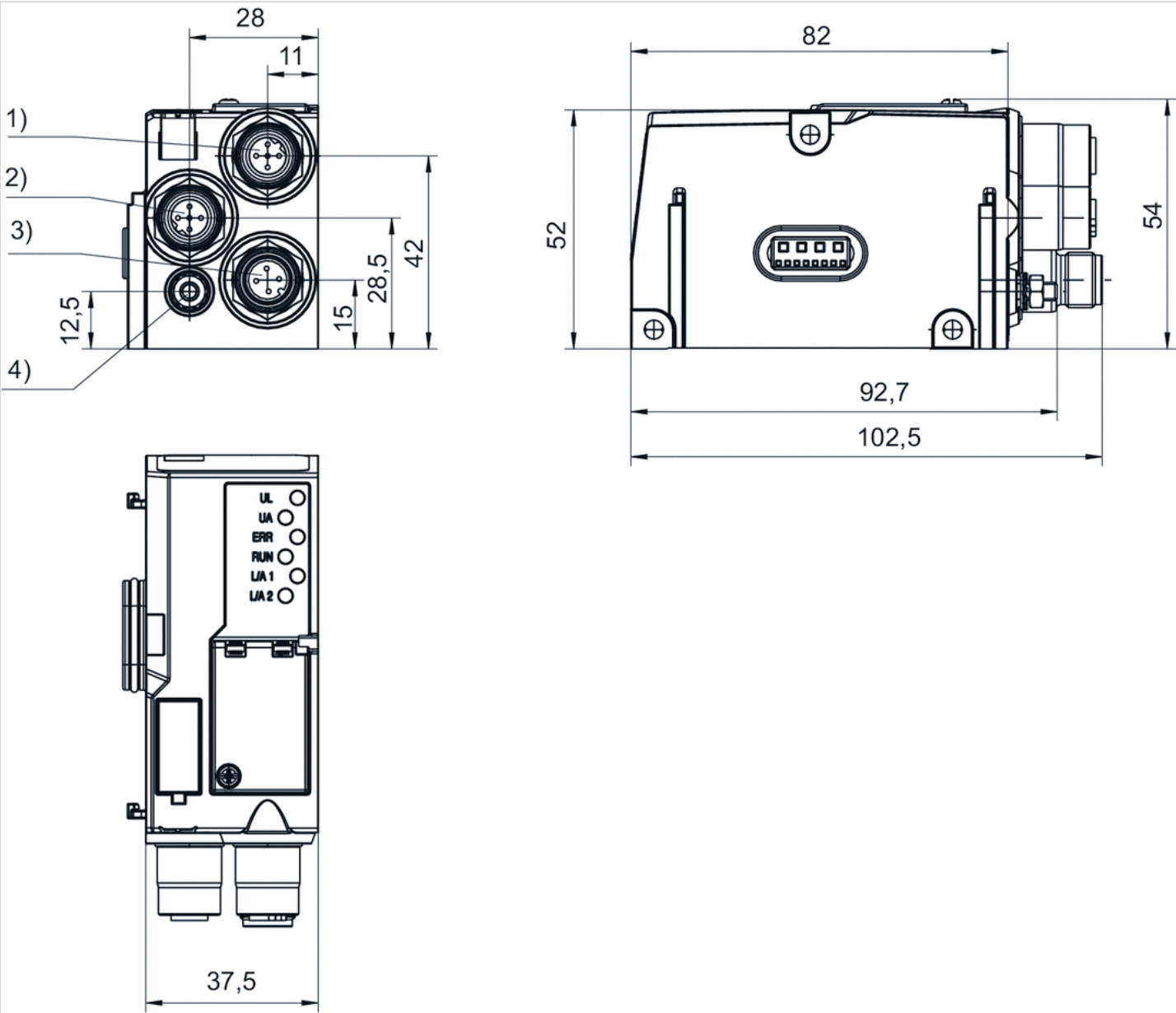
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
 Voltage and short-circuit monitoring per LED.
 During cyclical data transfer, the bus coupler can send 512 bits of input data to the controller and receive 512 bits of output data from the controller.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

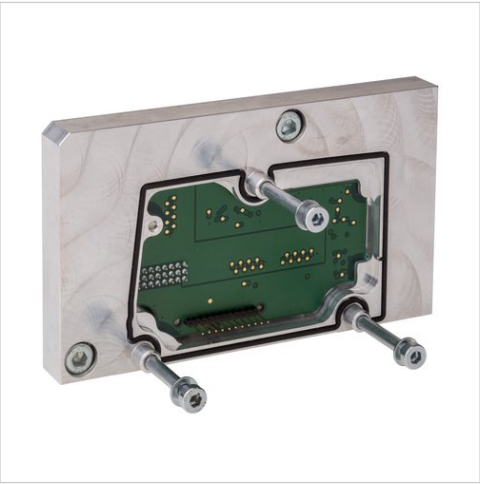
Dimensions



1) Fieldbus connection 2) Fieldbus connection 3) Power supply 4) Functional ground

Adapter module

- for series AES on B-design
- for series HF02-LG, HF03-LG, HF04, CD01-PI, CD10-PI, CD20-PI



Ambient temperature min./max.
 Weight

-10 ... 60 °C
 0,16 kg

Technical data

Part No.	Type	Scope of delivery	Scope of delivery
R412023458	32 outputs	Includes screws and seals.	1 piece

Technical information

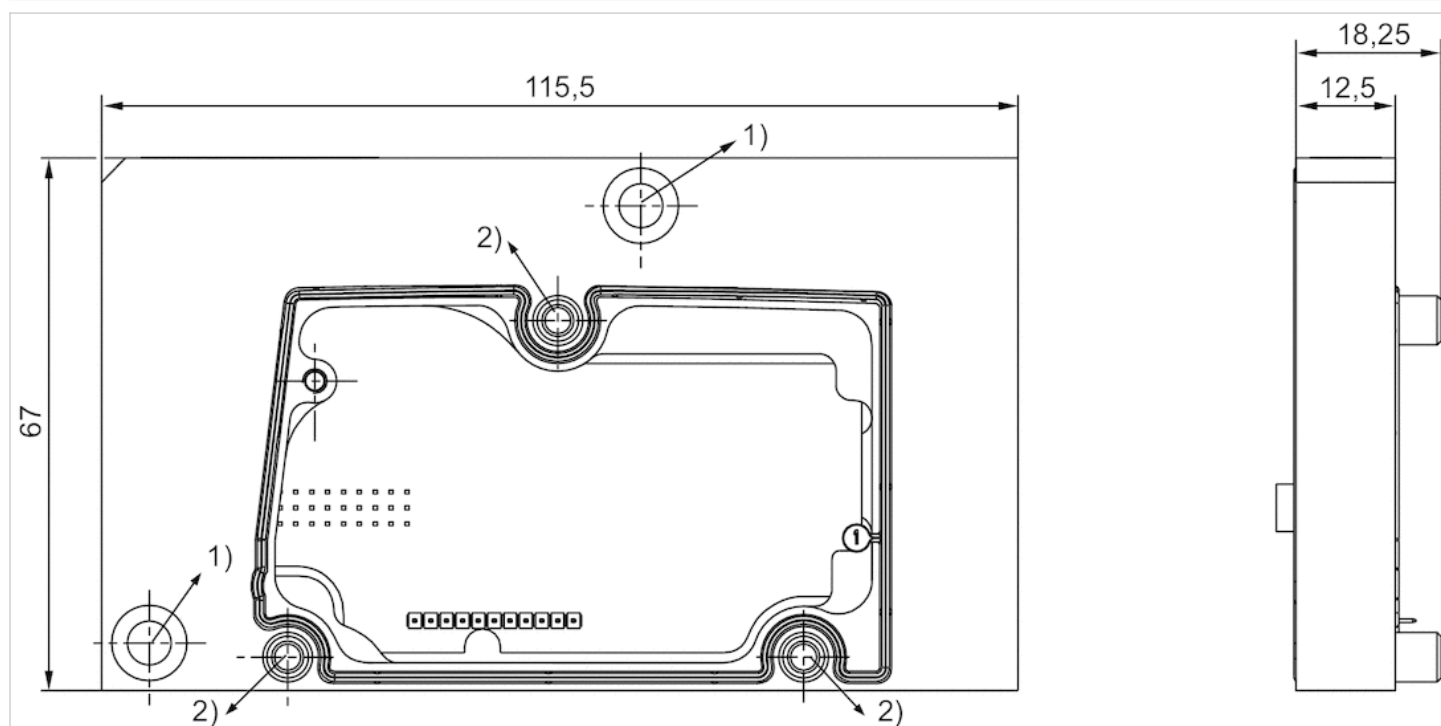
The adapter module is mounted on valve systems with a B-design interface for use with AES fieldbus couplers and AES I/O modules. See the operating instructions for further information (R412018150).

Technical information

Material	
Housing	Aluminum
Seals	Nitrile rubber

Dimensions

Dimensions



Includes screws and seals.

1) Torque: 3 Nm +0.5 Nm

2) Torque: 1.6 Nm +0.4 Nm

Optional field bus connection with I/O function (CMS), B-design

- B-design
- Bus coupler with driver
- Field bus protocol PROFIBUS DP, CANopen, DeviceNet, EtherNET/IP, PROFINET IO



Version

Ambient temperature min./max.
Operational voltage electronics
Electronics voltage tolerance
Operating voltage, actuators
Protection class
I/O module extension,max.
Weight

Bus coupler with driver

0 ... 50 °C
24 V DC
-15% / +20%
24 V DC
IP65
6
See table below
The delivered product may vary from that in the illustration.

Technical data

Part No.	Field bus protocol	Port
		1
R412003484	PROFIBUS DP	Plug (male), M12, 5-pin, B-coded
R412008516	PROFIBUS DP	Plug (male), M12, 5-pin, B-coded
R412005747	CANopen	Plug (male), M12, 5-pin, A-coded
R412008518	CANopen	Plug (male), M12, 5-pin, A-coded
R412004346	DeviceNet	Plug (male), M12, 5-pin, A-coded
R412008517	DeviceNet	Plug (male), M12, 5-pin, A-coded
R412012755	EtherNET/IP	-
R412014581	PROFINET IO	Socket (female), M12x1, 4-pin, D-coded
R412014583	PROFINET IO	Socket (female), M12x1, 4-pin, D-coded

Part No.	Port	power supply
	2	
R412003484	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412008516	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412005747	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008518	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412004346	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008517	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412012755	Socket (female), M12, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412014581	Socket (female), M12x1, 4-pin, D-coded	Plug (male), M12x1, 4-pin, A-coded
R412014583	Socket (female), M12x1, 4-pin, D-coded	Plug (male), 7/8"-16UNF, 5-pin

Part No.	Number of outputs for valve coils	Port
		Valve system
R412003484	24	Socket, 2.0 mm strip, 2x13-pin
R412008516	32	Socket, 2.0 mm strip, 3x13-pin

Part No.	Number of outputs for valve coils	Port
		Valve system
R412005747	24	Socket, 2.0 mm strip, 2x13-pin
R412008518	32	Socket, 2.0 mm strip, 3x13-pin
R412004346	24	Socket, 2.0 mm strip, 2x13-pin
R412008517	32	Socket, 2.0 mm strip, 3x13-pin
R412012755	32	Socket, 2.0 mm strip, 3x13-pin
R412014581	32	-
R412014583	32	-

Part No.	Power consumption electronics	Max. power consumption per coil	Weight	Fig.	
R412003484	0,12 A	0,063 mA	0,84 kg	Fig. 1	1)
R412008516	0,12 A	0,063 mA	0,84 kg	Fig. 1	1)
R412005747	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412008518	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412004346	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412008517	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412012755	0,12 A	0,063 mA	1 kg	Fig. 2	2)
R412014581	0,1 A	0,1 mA	0,91 kg	Fig. 1	1)
R412014583	0,1 A	0,1 mA	0,91 kg	Fig. 3	1)

Scope of delivery incl. 2 tie rod extensions and seal, The following operating instructions can be found in the Media Center for:↔PROFIBUS DP: R499050016↔CANopen: R412005742↔DeviceNet: R499050019↔EtherNET/IP: R412012728

1) Connection with two valve voltage circuits.

2) Connection with two valve voltage circuits., Only star topology

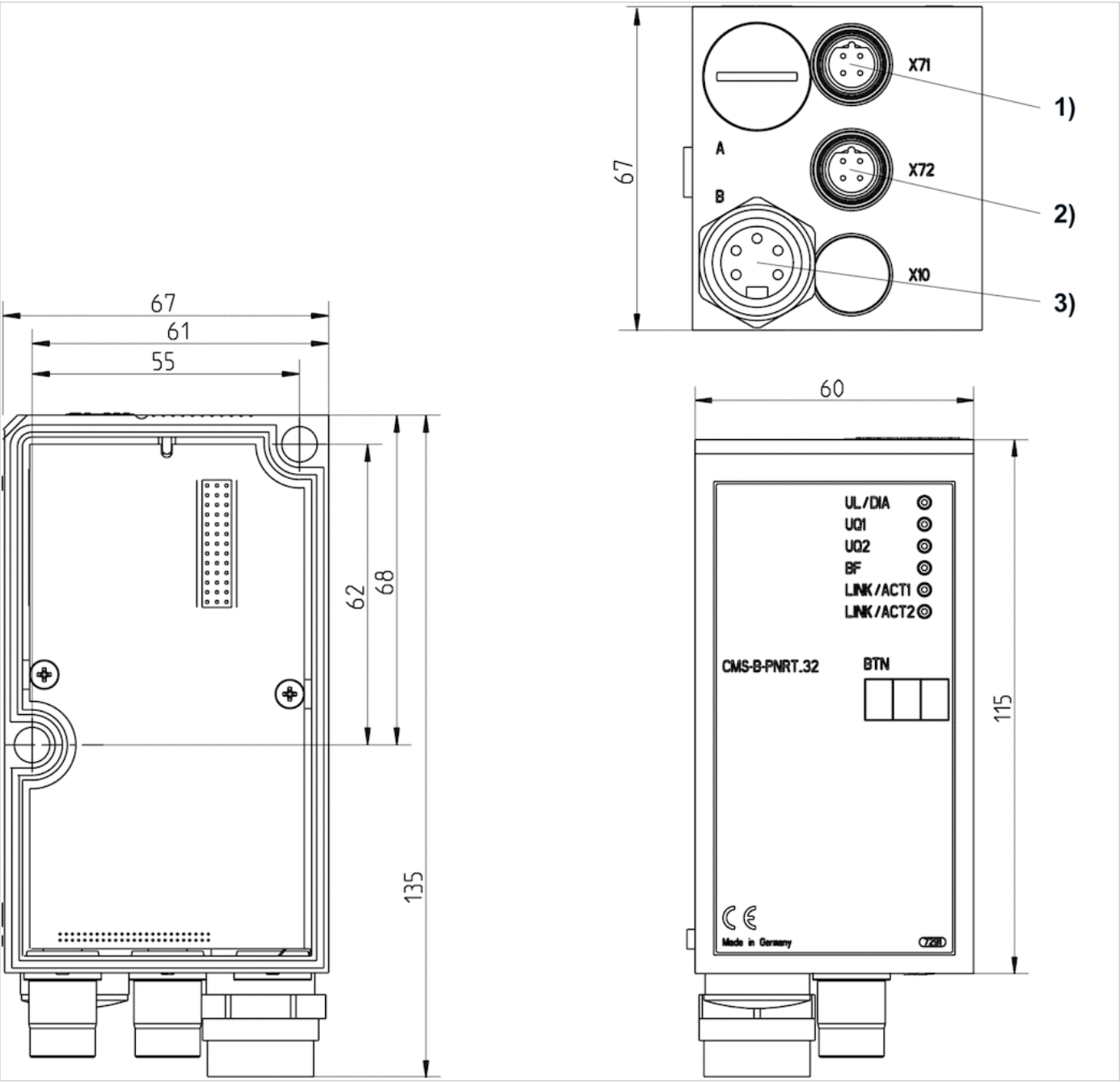
Technical information

Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications. You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

Material	
Housing	Die-cast aluminum

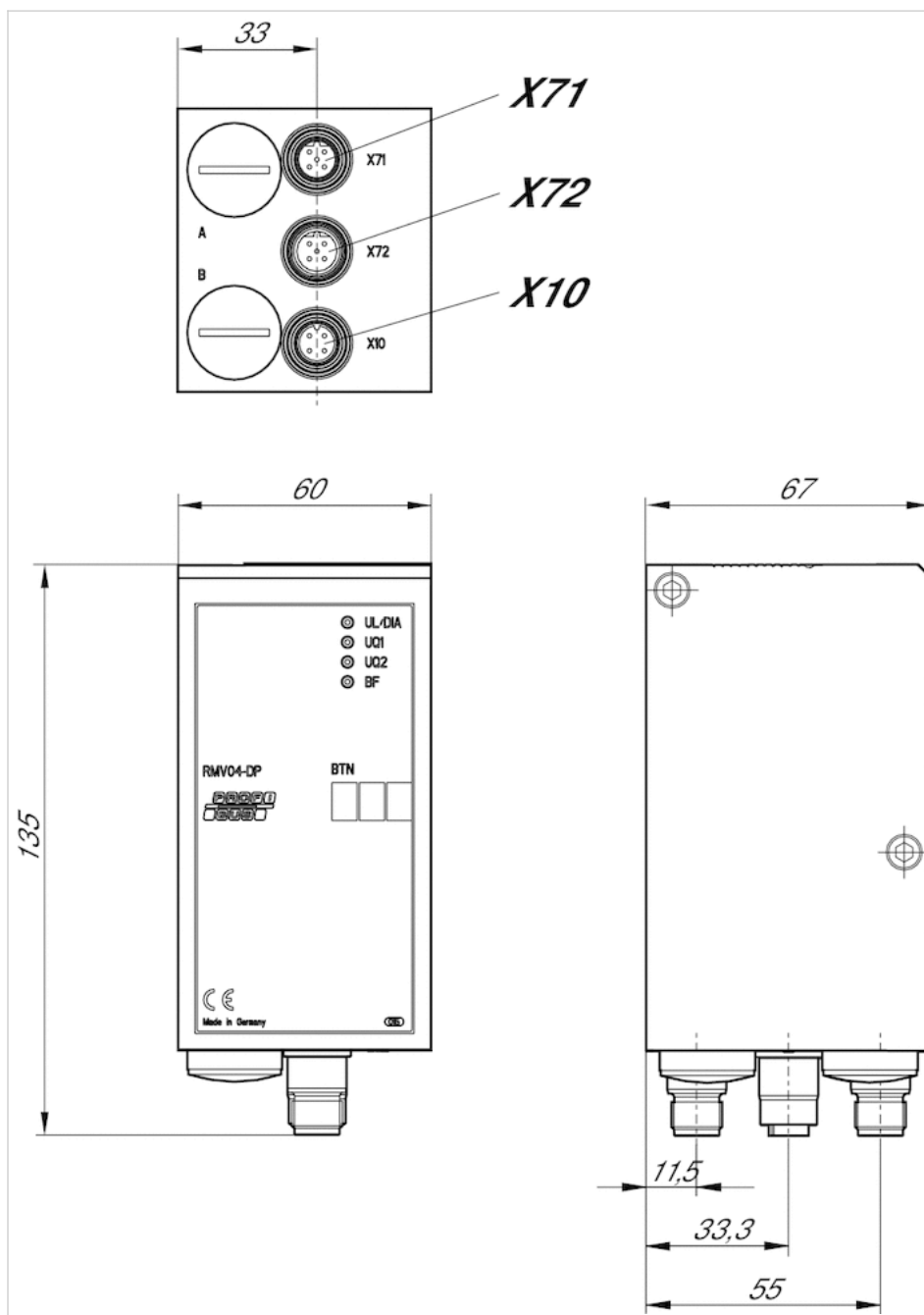
Fig. 3



1) Bus IN 2) Bus OUT 3) Power supply

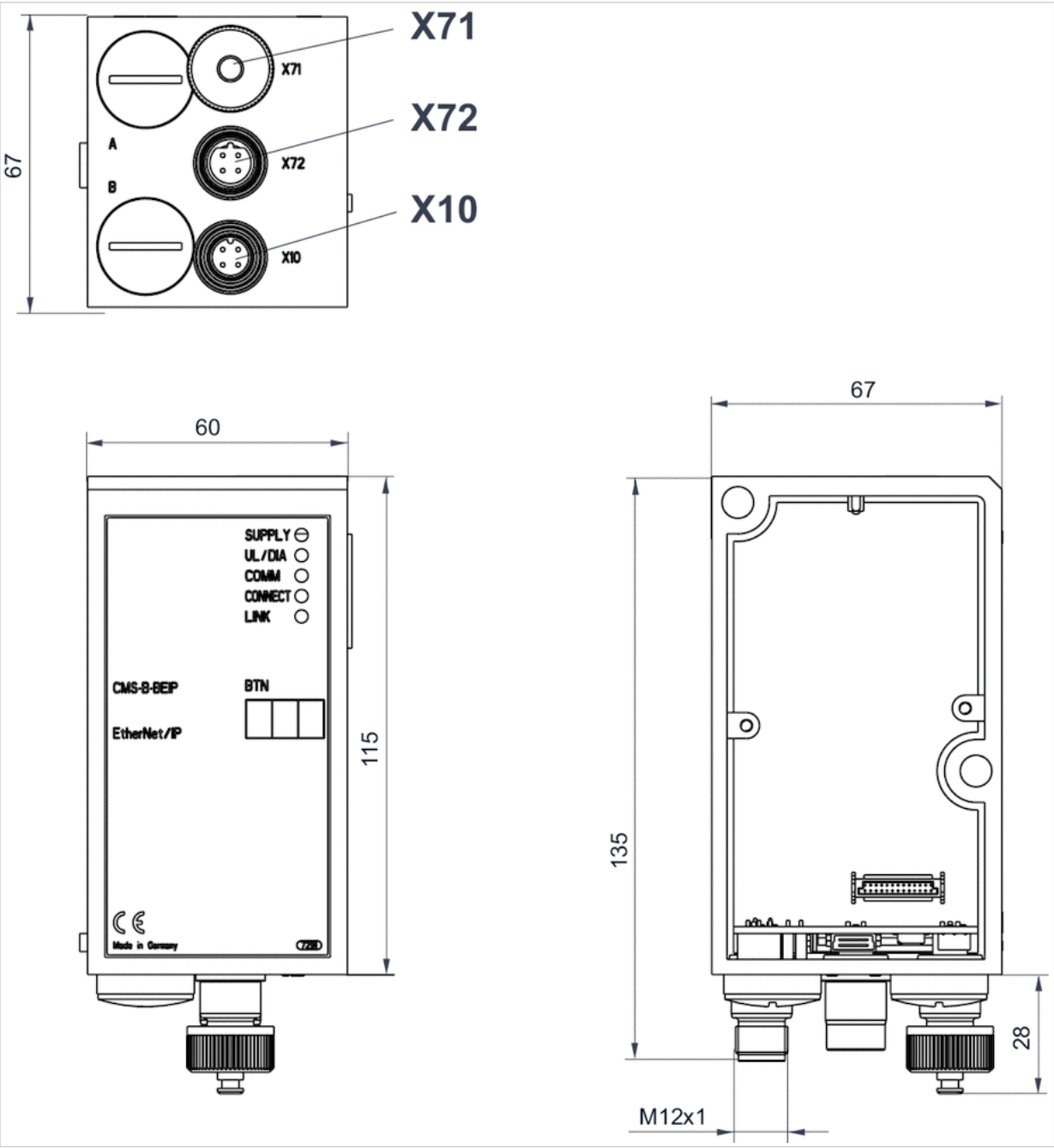
Dimensions

Fig. 1



X71, (Bus IN), M12x1X72, (Bus OUT), M12x1X10, (Power), M12x1

Fig. 2



X71 = optional interfaceX72 = BusX10 = Power

Series DDL

- B-design
- Driver
- Plug (male), M12, 5-pin, A-coded



Version	Driver
Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Power consumption electronics	0,2 A
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	3 A
Protection class	IP65
Number of solenoid coils,max.	24
Max. power consumption per coil	0,1 mA
Max. cable length	40 m
Max. number of DDL participants	14
Port,Valve system	Socket (female), 2.0 mm strip, 3x13-pin
I/O module extension,max.	6
I/O module extension,Input,Max.	3
I/O module extension,Output,Max.	3
Weight	1,04 kg

Technical data

Part No.	Port	Port
	1	2
R412006880	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded

Part No.	power supply
R412006880	Plug (male), M12, 4-pin, A-coded

Scope of delivery incl. 2 tie rod extensions and seal, The following operating instructions can be found in the Media Center:
R412009417 + R499050020

Technical information

Max. current in 0 V line: 4 A

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

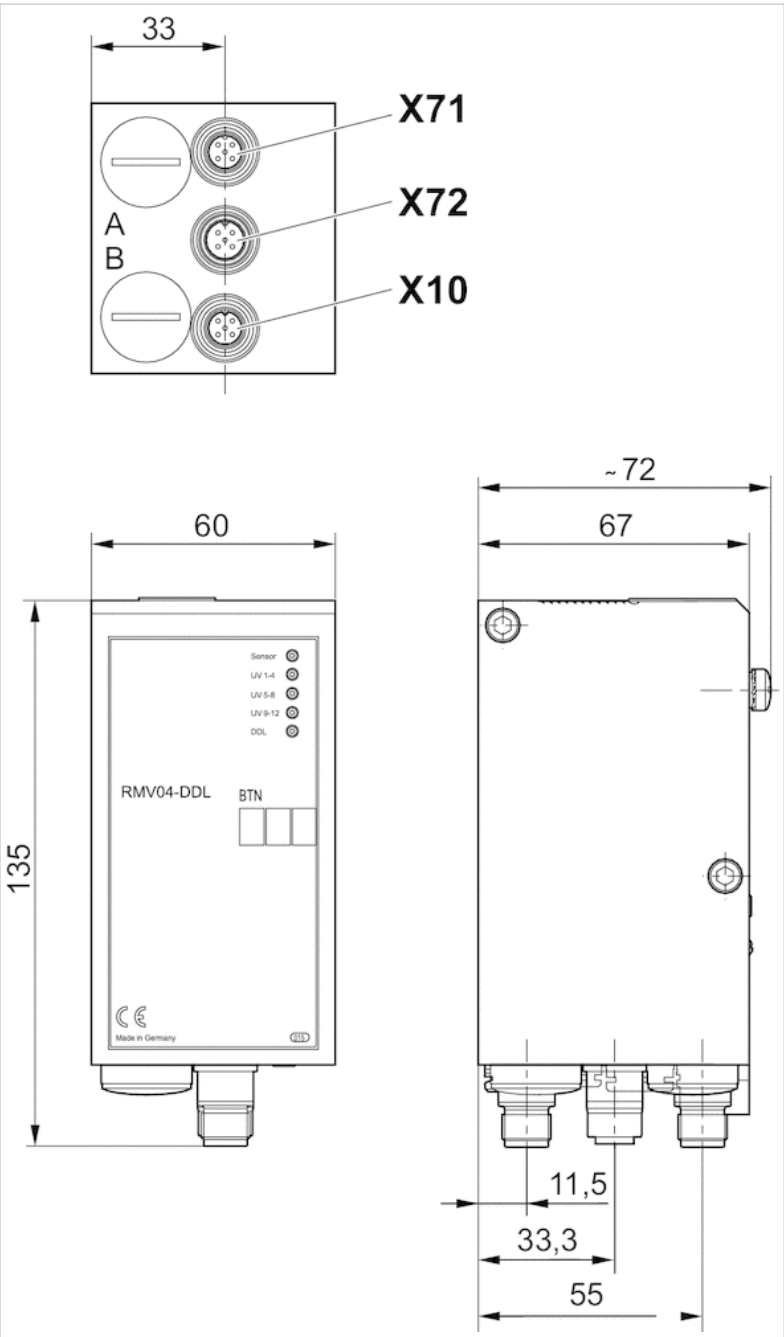
Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications.

Technical information

Material	
Housing	Die-cast aluminum

Dimensions

Dimensions



Series DDL

- B-design
- Driver
- Plug (male), M12, 5-pin, A-coded



Version	Driver
Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Power consumption electronics	0,05 A
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	3 A
Protection class	IP65
Number of solenoid coils,max.	32
Max. power consumption per coil	0,1 mA
Max. cable length	40 m
Max. number of DDL participants	14
Port,Valve system	Socket (female), 2.0 mm strip, 2x13-pin
Weight	0,29 kg

Technical data

Part No.	Port	Port
	1	2
R412008541	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded

Part No.	power supply
R412008541	Plug (male), M12, 4-pin, A-coded

Scope of delivery incl. 2 tie rod extensions and seal, The following operating instructions can be found in the Media Center:
R412009417 + R499050020

Technical information

Max. current in 0 V line: 4 A

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

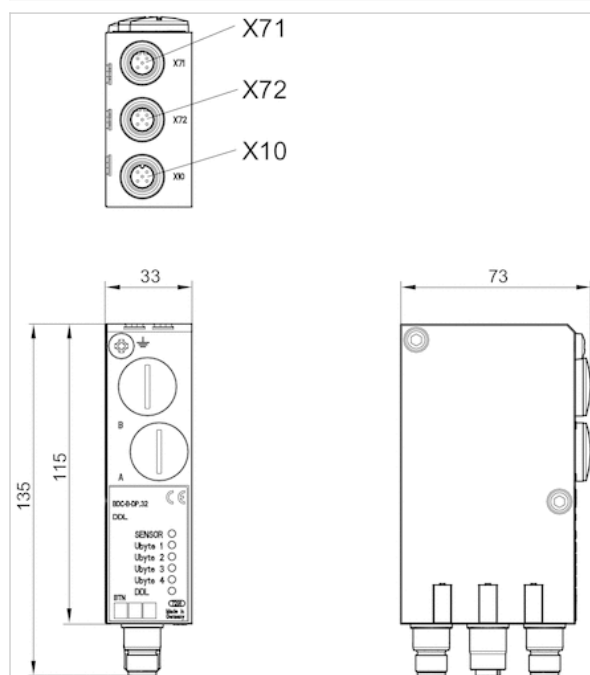
Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications.

Technical information

Material	
Housing	Die-cast aluminum

Dimensions

Dimensions



X71 = Bus IN
 X72 = Bus OUT
 X10 = power supply

Series AES

- digital inputs/outputs, Socket (female), M8x1



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0,5 A
Total current for actuators	4 A
Protection class	IP65
Total current of sensors,max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit, Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs	Number of outputs
		1			
R412018269	8DIDO8M8	Socket (female), 3-pin	Internal	8	8
R412018233	8DI8M8	Socket (female), 3-pin	Internal	8	-
R412018248	8DO8M8	Socket (female), 3-pin	Internal	-	8
R412018234	16DI8M8	Socket (female), 4-pin	Internal	16	-

Part No.	I/O module version	Fig.	
R412018269	Digital inputs, Digital outputs, Combination module	Fig. 1	1)
R412018233	Digital inputs	Fig. 1	-
R412018248	Digital outputs	Fig. 1	-
R412018234	Digital inputs	Fig. 2	-

Delivery contents: incl. 2 spring clamp elements and seal

1) Function specification for fieldbus configuration.

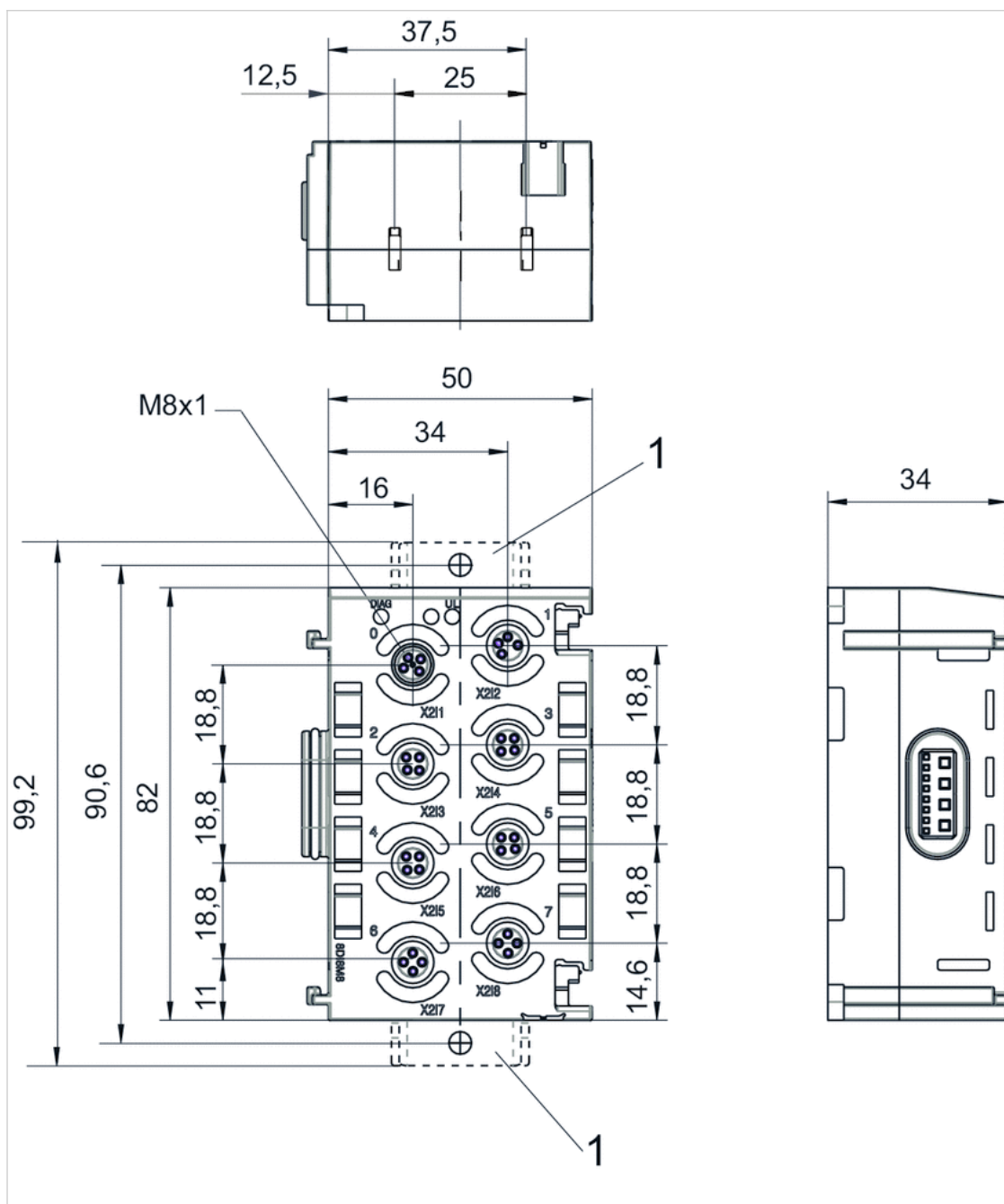
Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
The total current of all outputs (including valves) must not exceed 4 A in the overall system.
Voltage and short-circuit monitoring per LED.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

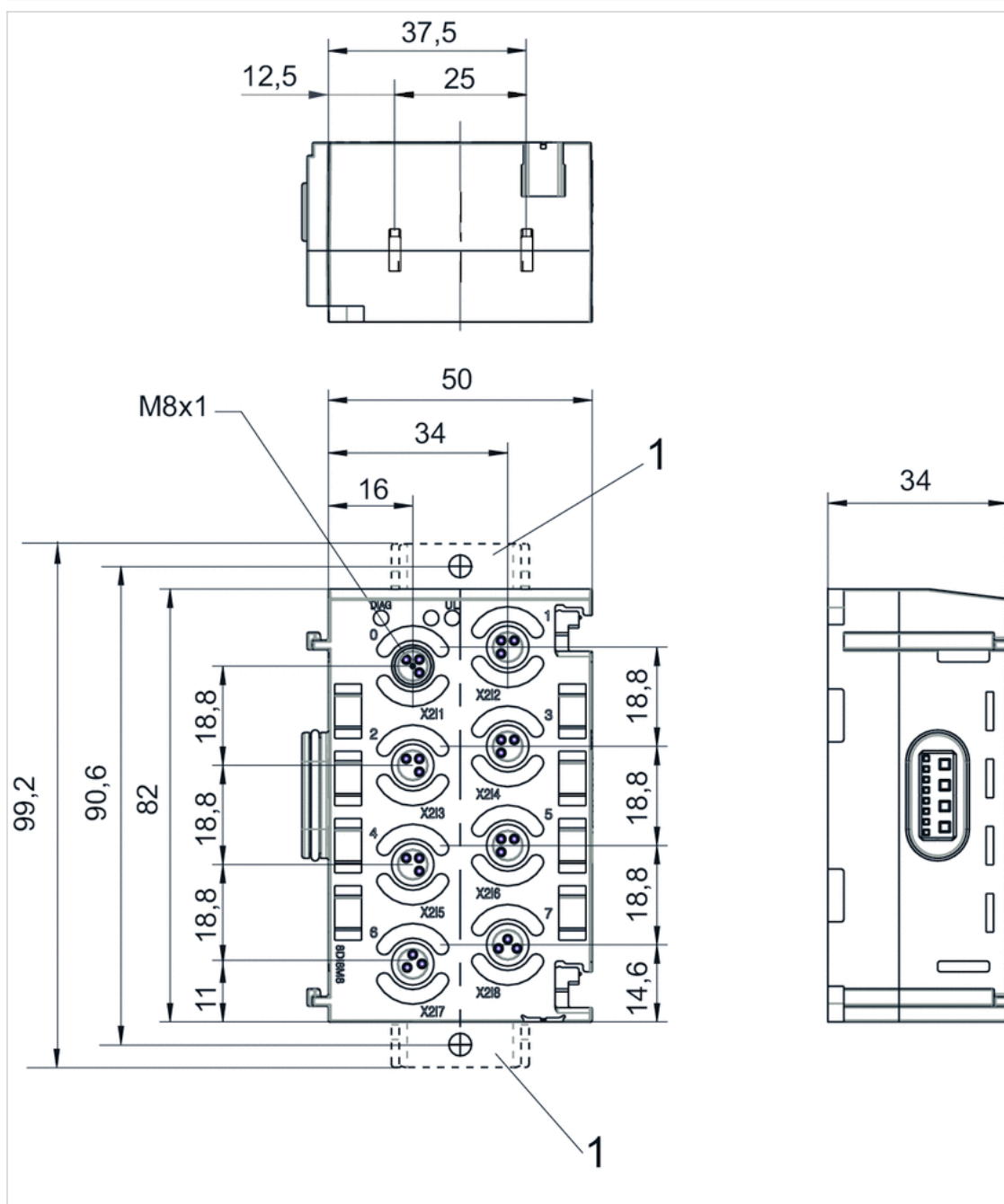
Dimensions Fig. 2



1) Retaining bracket (optional)
Pin assignment M8x1 (4-pin)

Dimensions

Dimensions Fig. 1

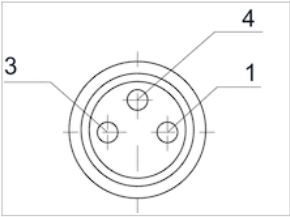


1) Retaining bracket (optional)

Pin assignment M8x1 (3-pin)

Pin assignments

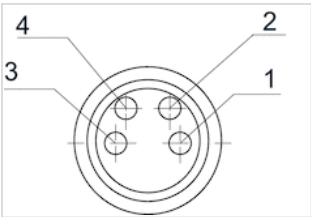
Pin assignments PNP 3-pin



Pin	1	3	4
Input module	24 V DC	0 V DC	Input signal
Output module	-	0 V DC	Output signal

Pin assignments

Pin assignments PNP 4-pin



Pin	1	2
Input module	24 V DC sensor voltage	Input signal (most significant bit)
	3	4
	0 V DC sensor voltage	Input signal (lower order bit)

Series AES

- digital inputs/outputs
- Socket (female), M12x1, 5-pin



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0,5 A
Power supply for actuators	8x0,5 A
Total current for actuators	4 A
Protection class	IP65
Total current of sensors,max.	1 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs	Number of outputs
		1			
R412018235	8DI4M12	Socket (female), M12x1, 5-pin	Internal	8	-
R412018250	8DO4M12	Socket (female), M12x1, 5-pin	Internal	-	8
R412018270	8DIDO4M12	Socket (female), M12x1, 5-pin	Internal	8	8

Part No.	I/O module version	
R412018235	Digital inputs	-
R412018250	Digital outputs	-
R412018270	Digital inputs, Digital outputs, Combination module	1)

Delivery contents: incl. 2 spring clamp elements and seal

1) Function specification for fieldbus configuration.

Technical information

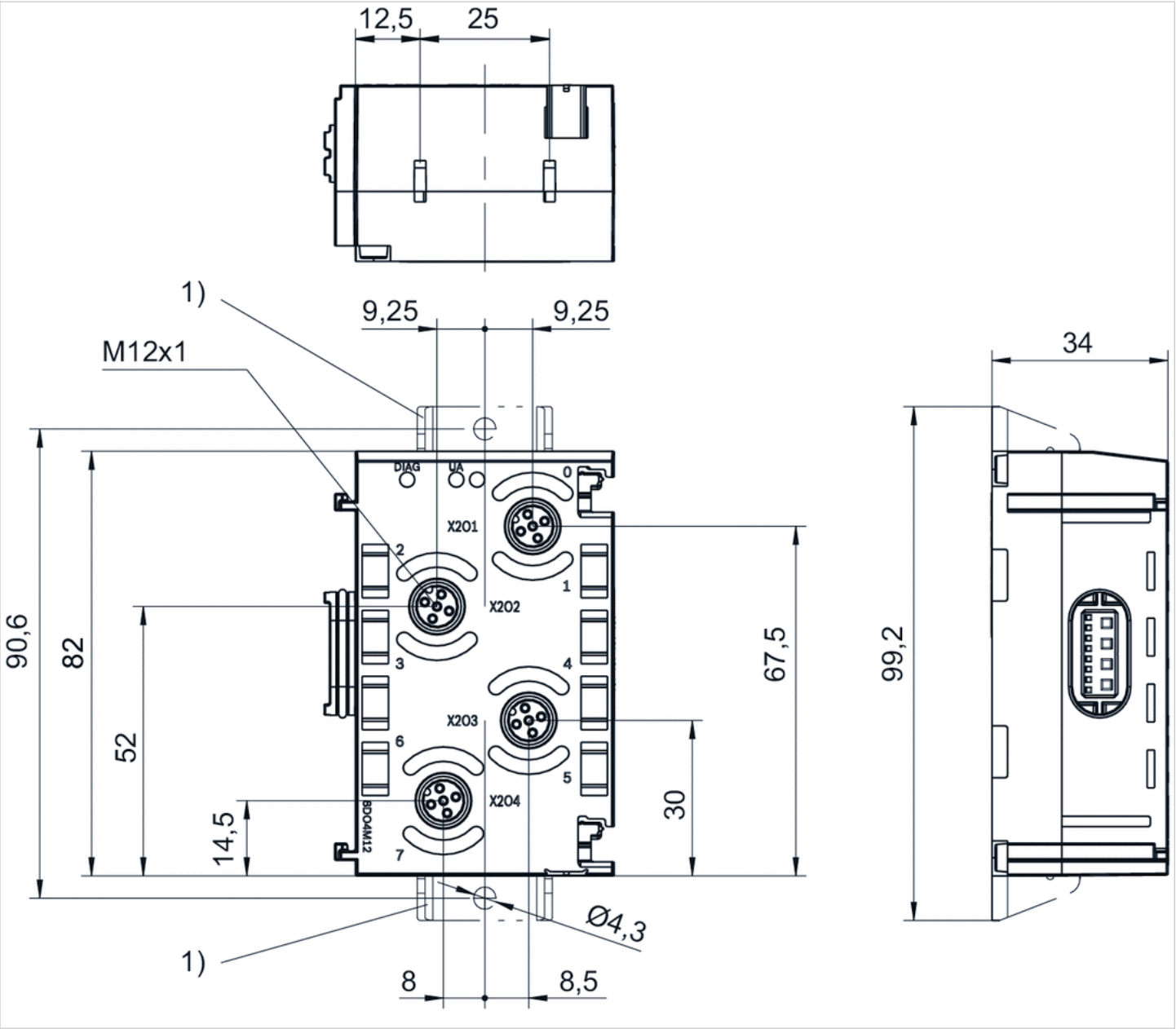
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
The total current of all outputs (including valves) must not exceed 4 A in the overall system.
Voltage and short-circuit monitoring per LED.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

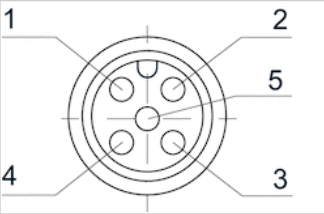
Dimensions

Dimensions



Pin assignments

Pin assignments PNP



Pin	1	2	3	4	5
Input module	24 V DC	Input signal [X+1]	0 V DC	Input signal [X]	-
Output module	-	Output signal [X+1]	0 V DC	Output signal [X]	-

X = bit value

X = bit value

Series AES

- digital inputs/outputs
- Socket (female), M12, 8-pin



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Max. current per channel	0,5 A
Total current for actuators	4 A
Protection class	IP65
Total current of sensors,max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs	Number of outputs
		1			
R412018243	16DI4M12	Socket (female), M12, 8-pin	Internal	16	-
R412018263	16DO4M12	Socket (female), M12, 8-pin	Internal	-	16

Part No.	I/O module version
R412018243	Digital inputs
R412018263	Digital outputs

Delivery contents: incl. 2 spring clamp elements and seal

Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

The total current of all outputs (including valves) must not exceed 4 A in the overall system.

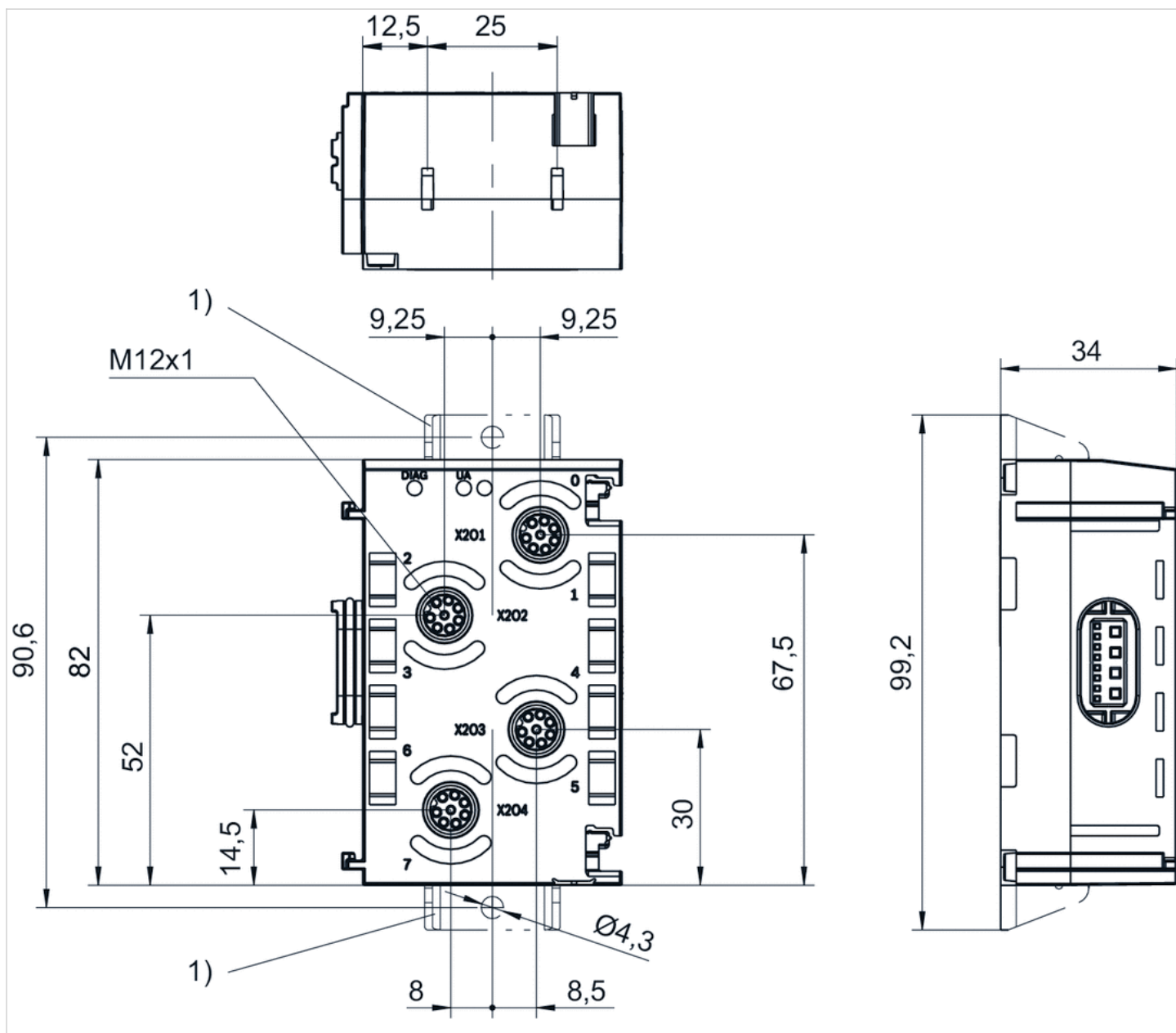
Voltage and short-circuit monitoring per LED.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

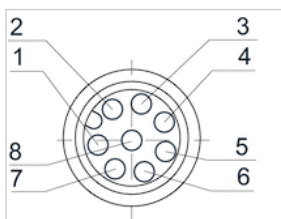
Dimensions



1) Retaining bracket (optional)

Pin assignments

Pin assignments PNP



Pin	1		2				
Input module	Input signal [X]		Input signal [X+1]				
Output module	Output signal 24 V DC [X]		Output signal 24 V DC [X+1]				
3		4		5	6	7	8
Input signal [X+2]		Input signal [X+3]		24 V DC	-	0 V DC	-
Output signal 24 V DC [X+2]		Output signal 24 V DC [X+3]		-	-	0 V DC	-
X = bit value							

X = bit value

Series AES

- digital outputs
- Socket, D-Sub, 25-pin



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Max. current per channel	0,5 A
Total current for actuators	4 A
Protection class	IP65
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit, Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,115 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs	Number of outputs
		1			
R412018254	24DO1DSUB25	Socket, D-Sub, 25-pin	Internal	24	24

Delivery contents: incl. 2 spring clamp elements and seal

Technical information

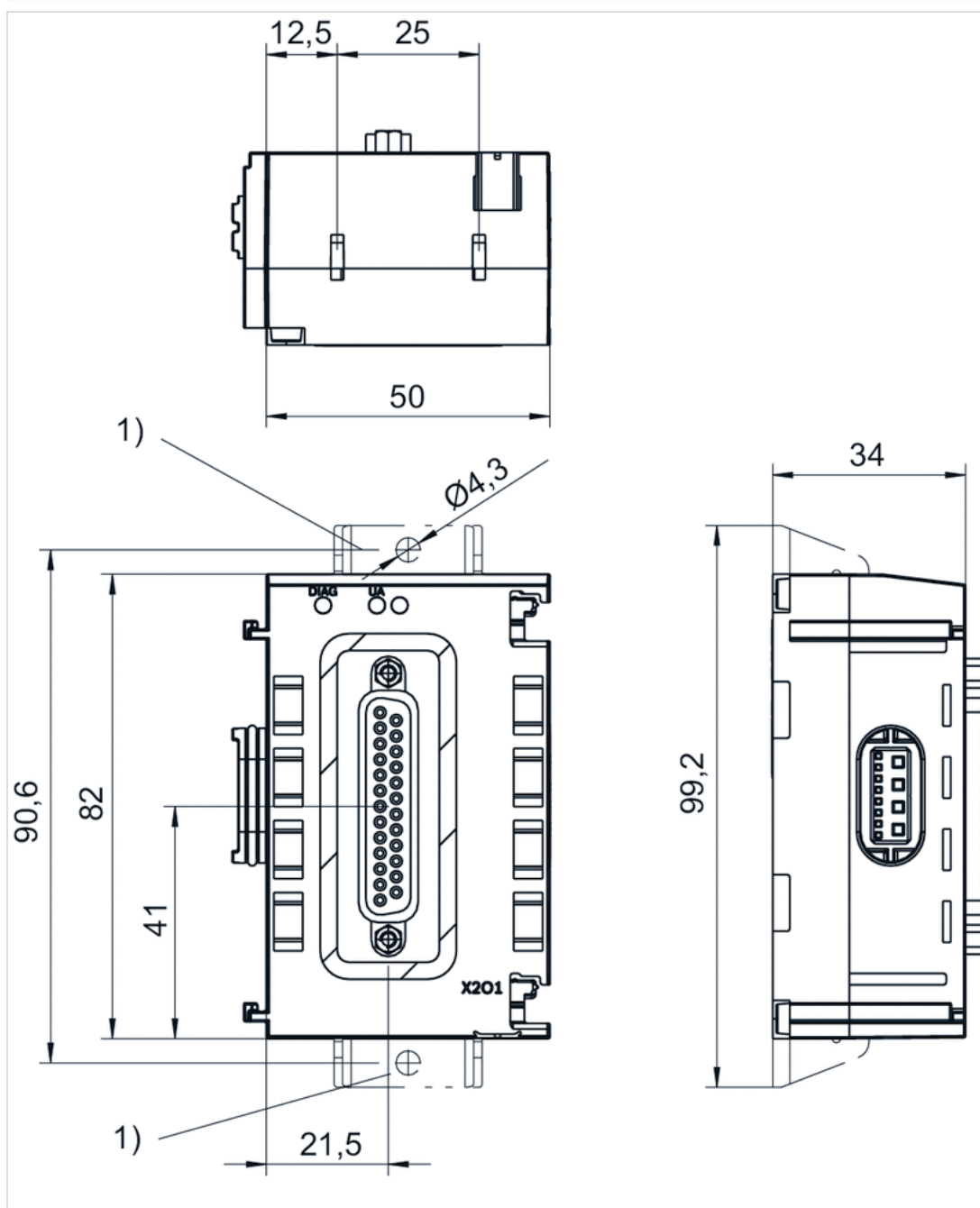
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
Voltage and short-circuit monitoring per LED.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

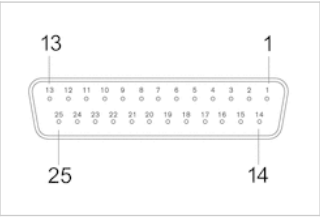
Dimensions



1) Retaining bracket (optional)

Pin assignments

PIN assignment and cable colors cable identification as per DIN 47100



Socket

Pin	1	2	3	4	5	6	7	8	9	10	11
Output module	[X]	[X+0.1]	[X+0.2]	[X+0.3]	[X+0.4]	[X+0.5]	[X+0.6]	[X+0.7]	[X+1]	[X+1.1]	[X+1.2]

12	13	14	15	16	17	18	19	20	21	22	23	24
[X+1.3]	[X+1.4]	[X+1.5]	[X+1.6]	[X+1.7]	[X+2.0]	[X+2.1]	[X+2.2]	[X+2.3]	[X+2.4]	[X+2.5]	[X+2.6]	[X+2.7]

25
0 V DC

X = bit value

Series AES

- digital inputs
- Spring clamp connections



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0,5 A
Protection class	IP20
Total current of sensors,max.	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,115 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs
		1		
R412018242	16DI48SC	Spring clamp connections	Internal	16

Delivery contents: incl. 2 spring clamp elements and seal

Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Voltage and short-circuit monitoring per LED.

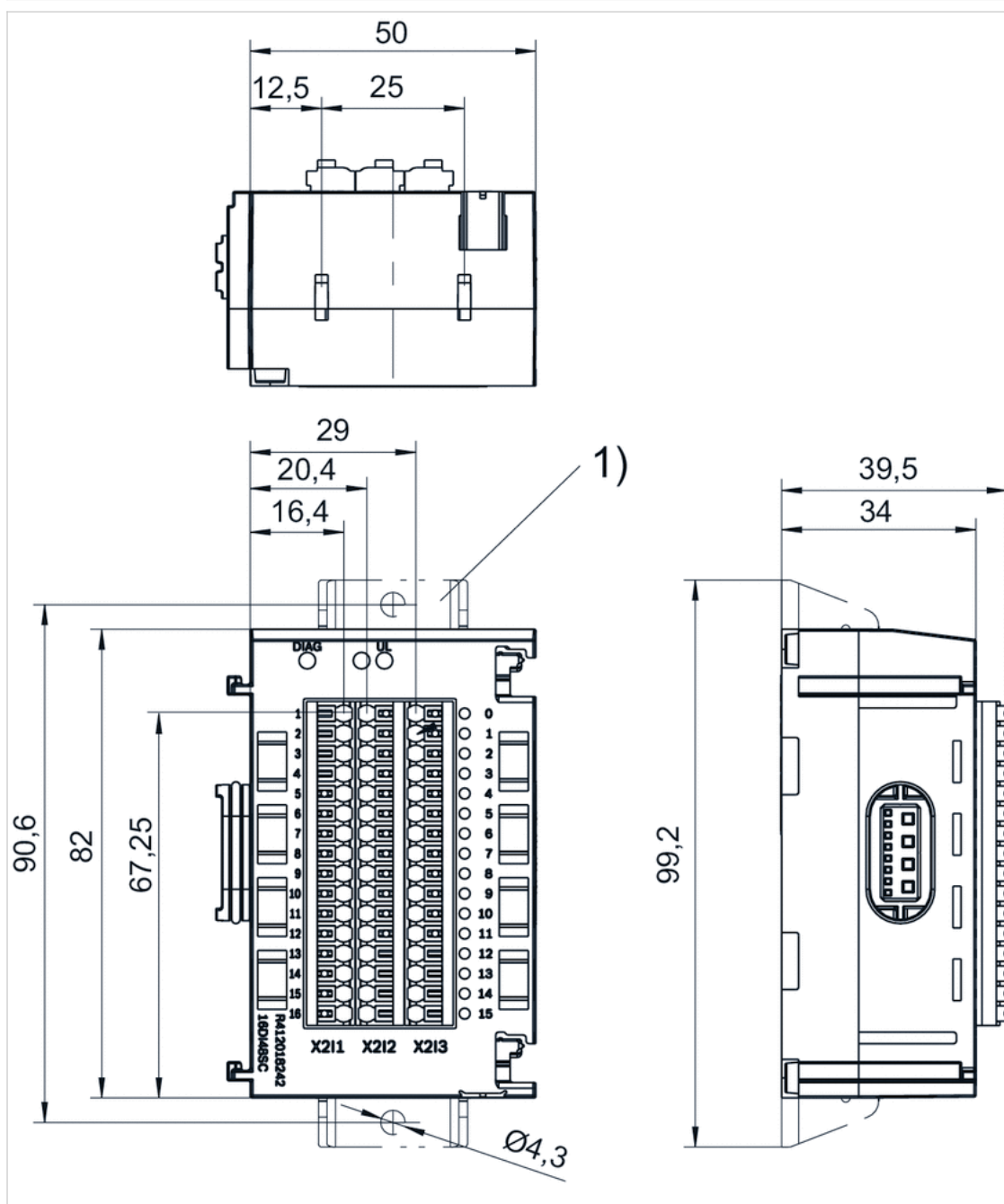
The clamp area for stranded wires is between 0.2 and 1.5 mm².

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

Dimensions



1) Retaining bracket (optional)

Series AES

- digital outputs
- Spring clamp connections



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0,5 A
Total current for actuators	4 A
Protection class	IP20
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,115 kg

Technical data

Part No.	Type	Port	power supply	Number of outputs	I/O module version
		1			
R412018252	16DO32SC	Spring clamp connections	Internal	16	Digital outputs

Delivery contents: incl. 2 spring clamp elements and seal

Technical information

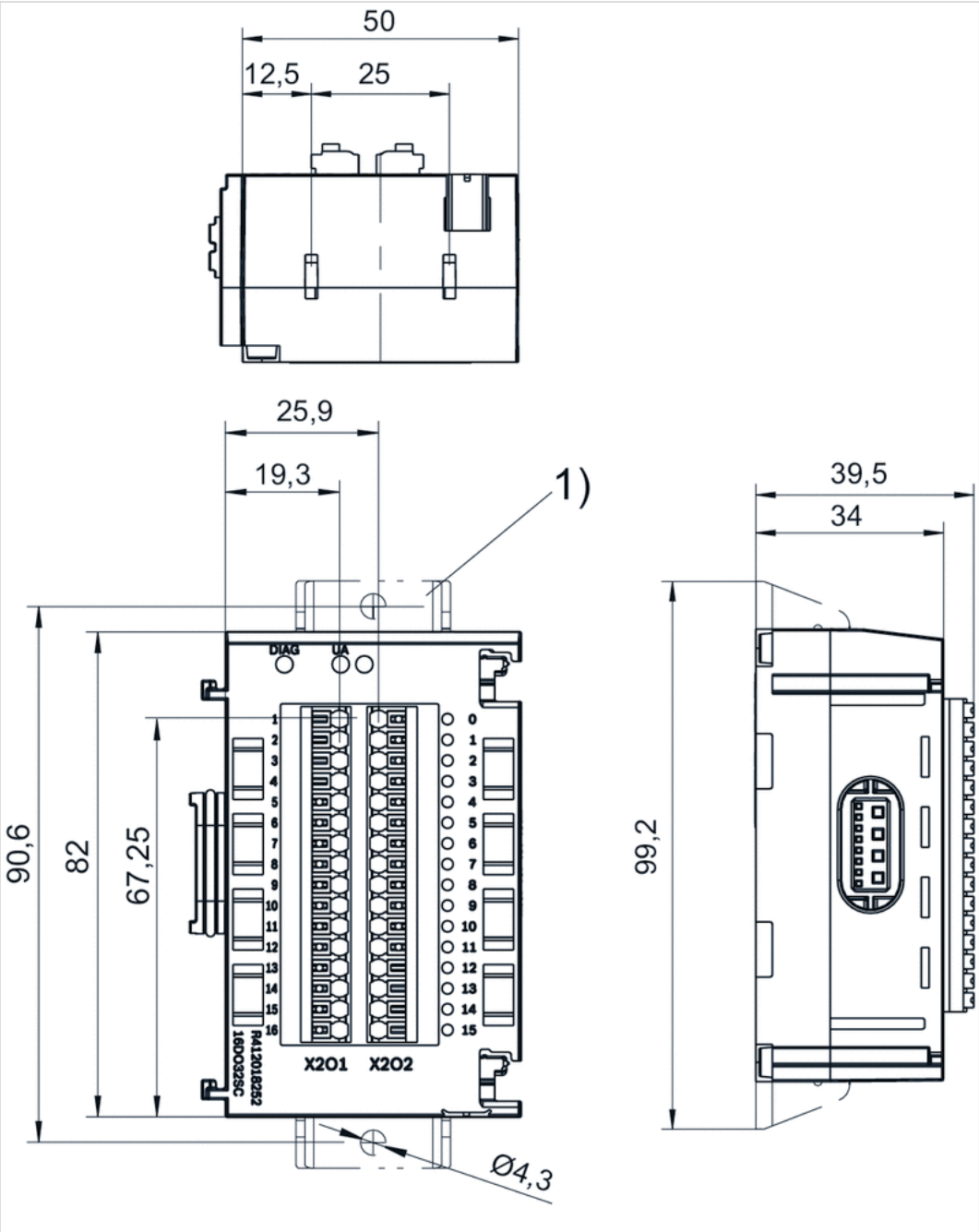
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
 The total current of all outputs (including valves) must not exceed 4 A in the overall system.
 Voltage and short-circuit monitoring per LED.
 The clamp area for stranded wires is between 0.2 and 1.5 mm².

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

Dimensions



1) Retaining bracket (optional)

Dimensions

Port	X201	
Contact	1	2
Function	Output signal 24 V DC bit 0.0	Output signal 24 V DC bit 0.1
	3	4
	Output signal 24 V DC bit 0.2	Output signal 24 V DC bit 0.3
	5	6
	Output signal 24 V DC bit 0.4	Output signal 24 V DC bit 0.5
	7	8
	Output signal 24 V DC bit 0.6	Output signal 24 V DC bit 0.7

Series AES

- control module M12x1, 5-pin ► with external power supply ► control of E/P pressure regulators
- position control ► superordinate control
- I/O module version
- Socket (female), M12x1, 5-pin



Version	I/O module version
Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Protection class	IP65
Diagnosis	Short circuit, Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port	power supply
		1	
R412018293	2AI2AO2M12-C	Socket (female), M12x1, 5-pin	Plug (male), M12, 4-pin, A-coded

Part No.	Number of inputs	Number of outputs
R412018293	2	2

Part No.	Analog inputs
R412018293	0 - 10 V / $\pm$ 10 V, 2 - 10 V / $\pm$ 10 V, 0 - 20 mA / $\pm$ 20 mA, 4 - 20 mA / $\pm$ 20 mA

Part No.	Analog outputs
R412018293	0 - 10 V / $\pm$ 10 V, 0 ... 20 mA, 4 ... 20 mA

Part No.	I/O module version
R412018293	Analog inputs, Analog outputs

Delivery contents: incl. 2 spring clamp elements and seal
freely selectable signals, configurable

Technical information

Information on the assignment scheme and control parameters can be found in the operating instructions. Or, contact your nearest AVENTICS sales office.

The total current of all outputs (including valves) must not exceed 4 A in the overall system.

After direct connection to an electropneumatic pressure regulator suitable for controlling positions or superior control circuits.

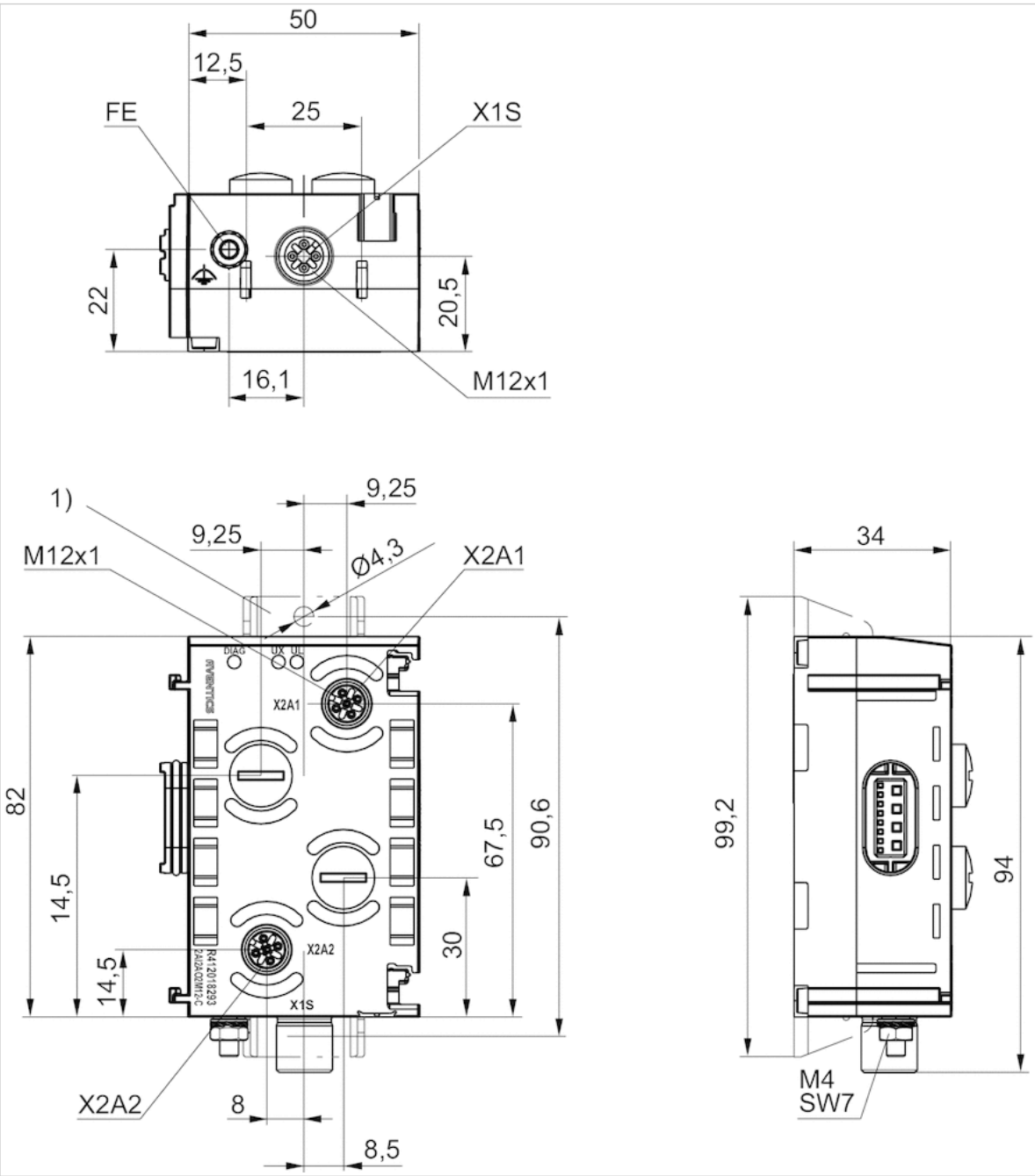
Suitable for direct connection of an electropneumatic pressure regulator from the ED series.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

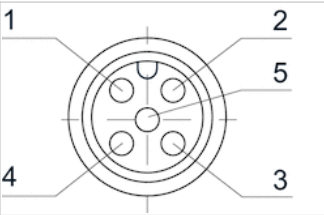
Dimensions



1) Retaining bracket (optional)

Pin assignments

Pin assignments Socket (female)



Pin	1	2	3	4
Socket (female) X2A1 - X2A2	24 V DC	Output signal	0 V DC	Input signal
Plug (male) X1S	-	24 V DC	-	0 V DC
5				
Ground				
-				

Series AES

- analog inputs/outputs, M12x1, 5-pin
- I/O module version
- Socket (female), M12, 5-pin



Version	I/O module version
Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Max. current per channel	0,5 A
Protection class	IP65
Diagnosis	Short circuit, Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port	power supply	Number of inputs	Number of outputs
		1			
R412018277	2AI2M12-E	Socket (female), M12, 5-pin	Internal	2	-
R412018278	4AI4M12-E	Socket (female), M12, 5-pin	Internal	4	-
R412018281	2AO2M12-E	Socket (female), M12, 5-pin	Internal	-	2

Part No.	Analog inputs
R412018277	0 - 10 V / $\pm$ 10 V, 2 - 10 V / $\pm$ 10 V, 0 - 20 mA / $\pm$ 20 mA, 4 - 20 mA / $\pm$ 20 mA
R412018278	0 ... 10 V, 2 - 10 V, 0 ... 20 mA, 4 ... 20 mA
R412018281	-

Part No.	Analog outputs	
R412018277	-	1)
R412018278	-	-
R412018281	0 - 10 V / $\pm$ 10 V, 0 ... 20 mA, 4 ... 20 mA	1)

Delivery contents: incl. 2 spring clamp elements and seal

1) freely selectable signals, configurable

Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

The total current of all outputs (including valves) must not exceed 4 A in the overall system.

Voltage and short-circuit monitoring per LED.

The input channels have an input resistance of 120 ohms in the current range and 100 kilohms in the voltage range.

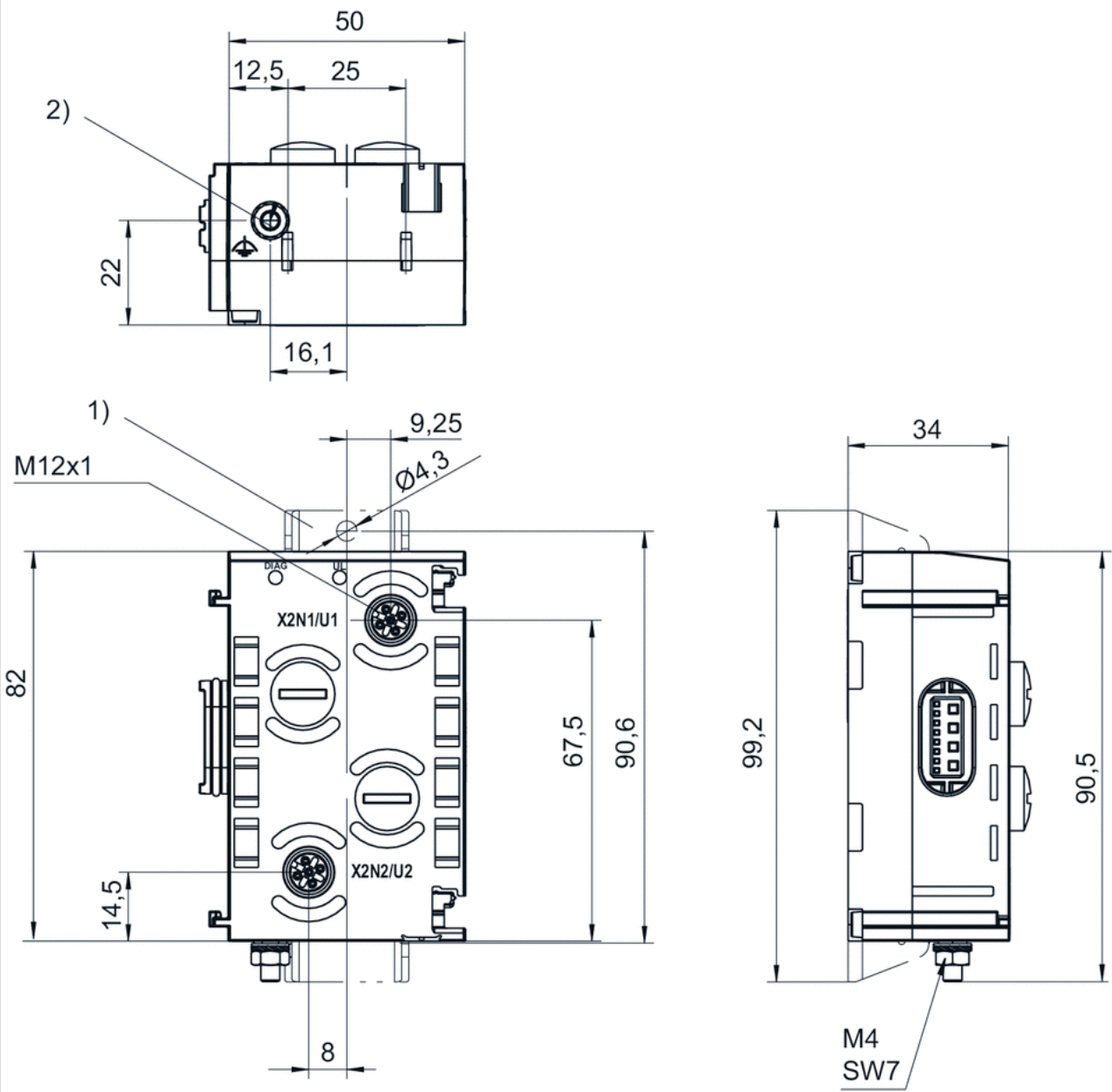
The output channels can drive a maximum ohmic load of 450 ohms in the current range. The minimum resistance in the voltage range is 1 kilohm.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

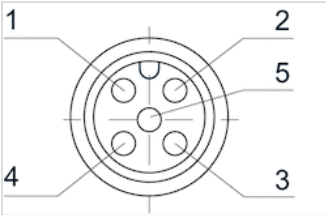
Dimensions



- 1) Retaining bracket (optional)
- 2) Ground

Pin assignments

Pin assignments Socket (female)



Pin	1
Socket (female) X2N1 - X2N22AI2M12-E	24 V DC
Socket (female) X2U1 - X2U44AI4M12-E	24 V DC
Socket (female) X2U1 - X2U22AO2M12-E	not assigned
2	3
Input signal (differential input, positive signal)	0 V DC
Input signal (differential input, positive signal)	0 V DC
Output signal	0 V DC
4	
Input signal (differential input, negative signal, or connected externally to 0 V (pin 3))	
Input signal (0 V, connected to pin 3 internally)	
not assigned	
5	
Ground	
Ground	
Shield, connected internally with ground screw (12)	

Series AES

- analog inputs/outputs M12x1, 5-pin ► with external power supply ► control of E/P pressure regulators
- Socket (female), M12x1, 5-pin



Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Max. current per channel	1,2 A
Protection class	IP65
Diagnosis	Short circuit, Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,11 kg

Technical data

Part No.	Type	Port
		1
R412018287	2AI2AO2M12-AE	Socket (female), M12x1, 5-pin

Part No.	power supply	Number of inputs	Number of outputs
R412018287	Plug (male), M12, 4-pin, A-coded	2	2

Part No.	Analog inputs
R412018287	0 - 10 V / ± 10 V, 2 - 10 V / ± 10 V, 0 - 20 mA / ± 20 mA, 4 - 20 mA / ± 20 mA

Part No.	Analog outputs
R412018287	0 - 10 V / ± 10 V, 0 ... 20 mA, 4 ... 20 mA

Part No.	I/O module version
R412018287	Analog inputs, Analog outputs

Delivery contents: incl. 2 spring clamp elements and seal
freely selectable signals, configurable

Technical information

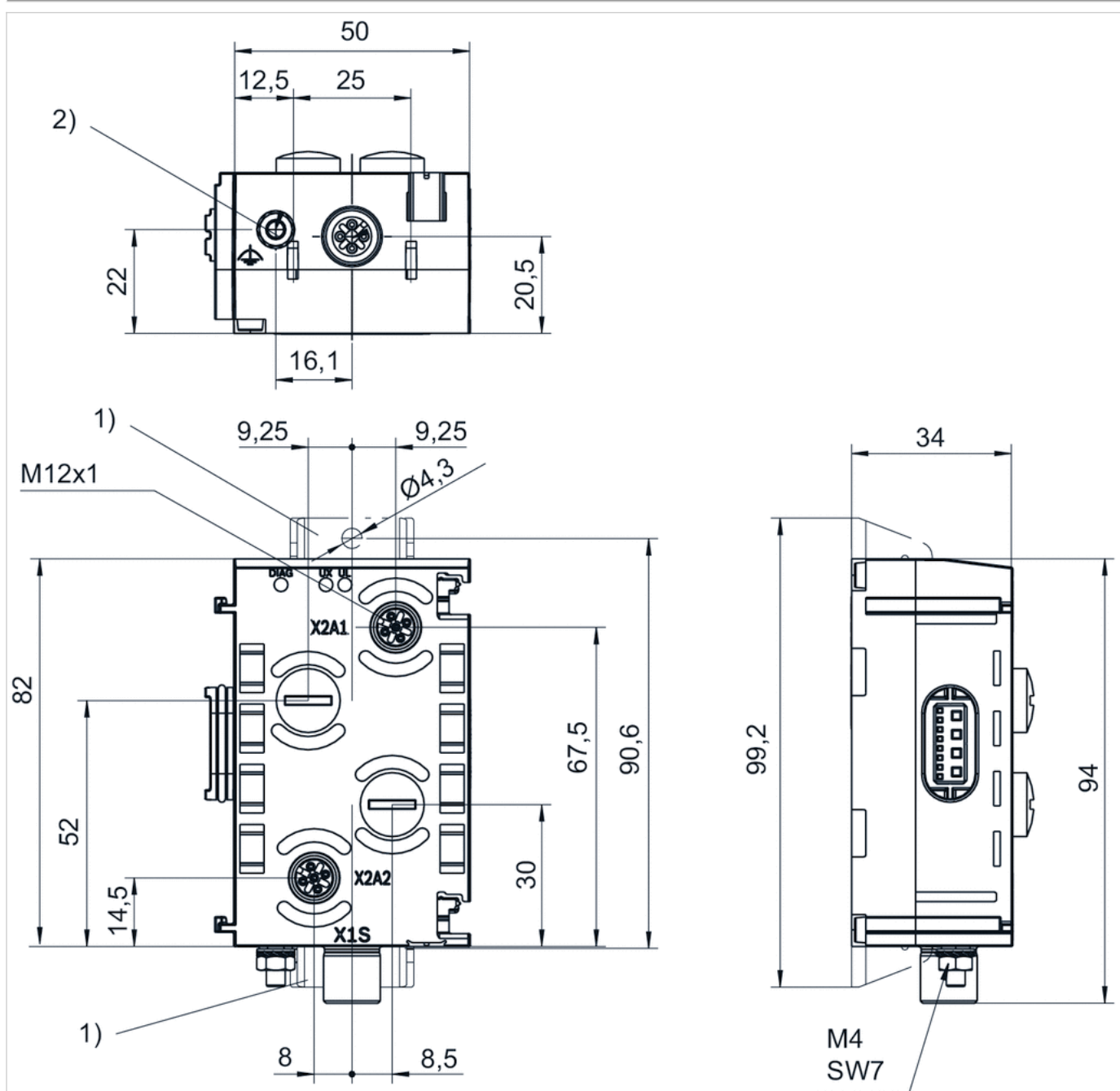
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
The total current of all outputs (including valves) must not exceed 4 A in the overall system.
Suitable for direct connection of an electropneumatic pressure regulator from the ED series.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

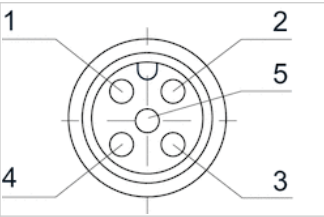
Dimensions



1) Retaining bracket (optional)

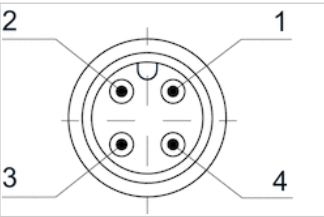
2) Ground

Pin assignments Socket (female)



Pin assignments

Plug (male)



Pin	1	2	3	4
Socket (female) X2A1 - X2A2	24 V DC	Output signal	0 V DC	Input signal
Plug (male) X1S	-	24 V DC	-	0 V DC
5				
Ground				
-				

Series AES

- Pressure measurement module with 4 compressed air connection



Ambient temperature min./max.	-10 ... 60 °C
Protection class	IP65
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,115 kg

Technical data

Part No.	Type	Port size	Number of inputs	Measurement range	Measurement range
				min.	max.
R412018291	4P4D4	D4	4	0 bar	10 bar
R412018292	4VP4D4	D4	4	-1 bar	1 bar

Technical information

When using polyurethane tubing, we recommend using additional stiffener sleeves.

For push-in fittings, only use plug accessories made of plastic (polyamide) from our catalog.

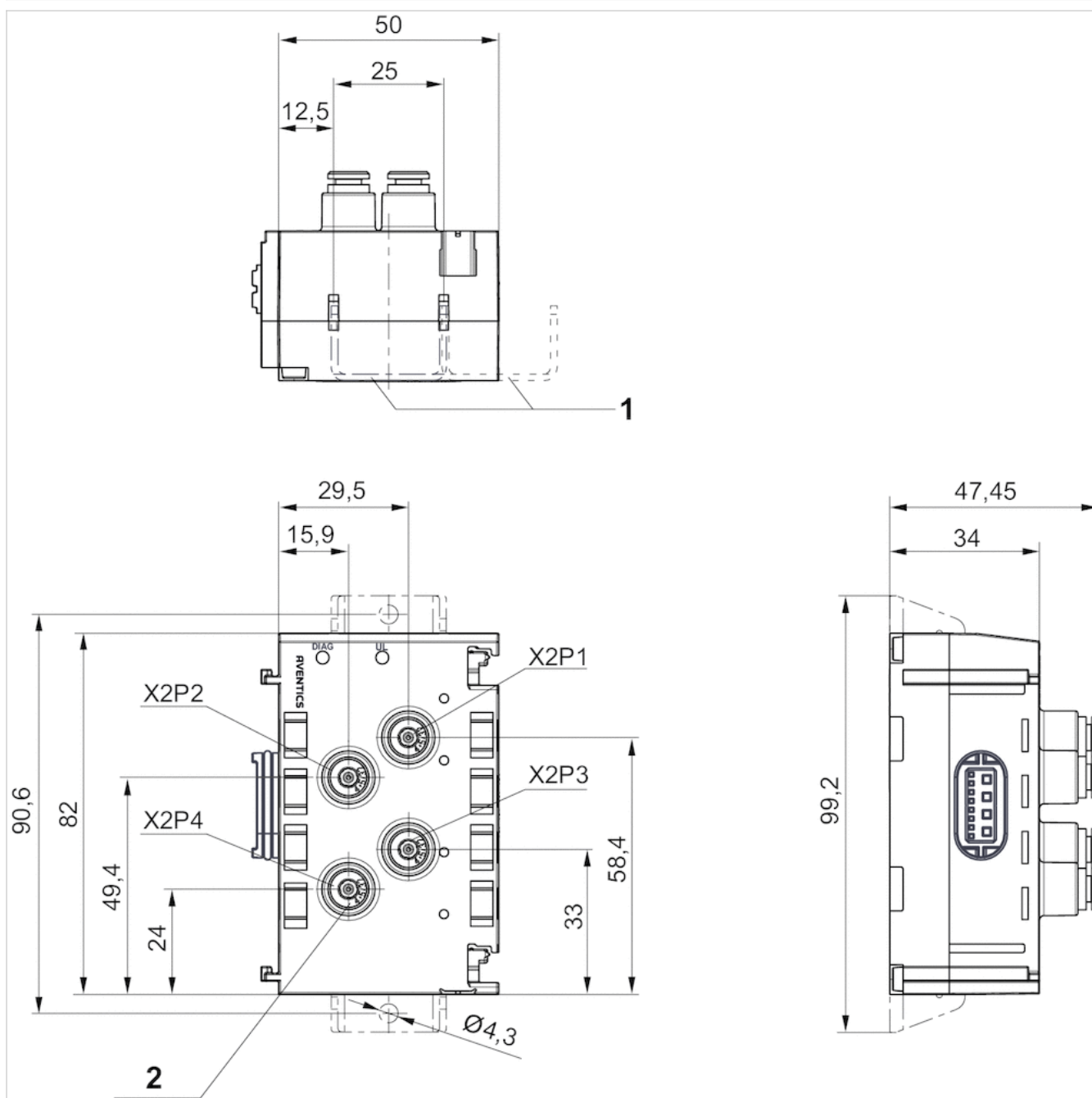
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

Dimensions



- 1) Retaining bracket (optional)
- 2) Blanking plug included in scope of delivery

Distributor, Series AES

- 4x passive distributor, M12x1, 8-pin / 4x M8x1, 3-pin
- Plug (male), M12x1, 8-pin



Ambient temperature min./max.	-30 ... 80 °C
Operational voltage electronics	24 V DC
Power consumption electronics	2 A
Protection class	IP67
Weight	0,07 kg

Technical data

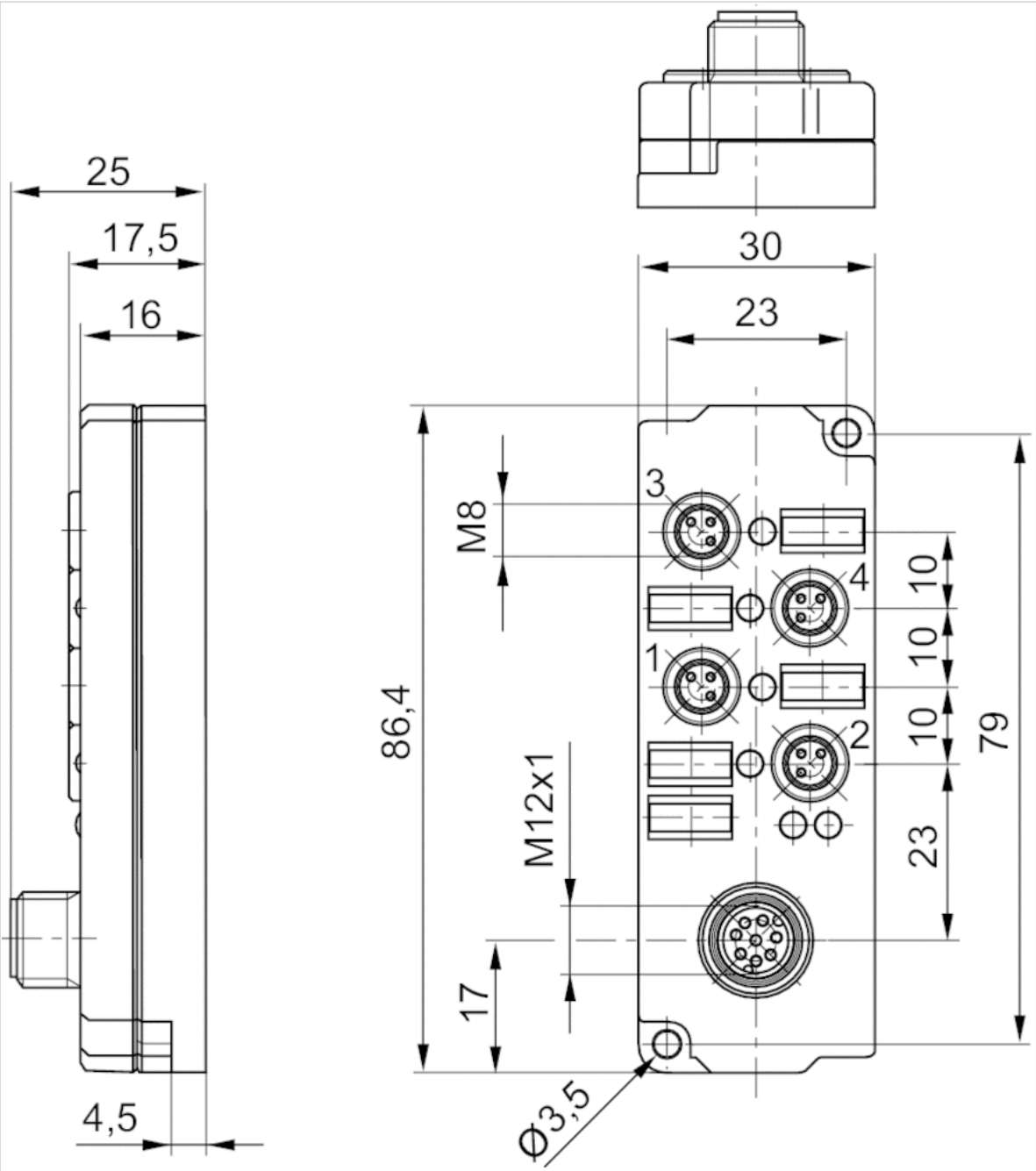
Part No.	Type	Port	
		1	2
R402001810	16DI4M12, 16DI8M8	Plug (male), M12x1, 8-pin	Socket (female), M8x1, 3-pin

Technical information

Material	
Housing	Polyamide

Dimensions

Dimensions



Series AES

- power supply, M12 plug, 4-pin
- Power module
- Plug, M12x1, 4-pin



Version	Power module
Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-20% / +20%
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65
Total current of sensors,max.	4 A
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,15 kg

Technical data

Part No.	Port	Power supply direction	Power supply direction
	1	UL	UA
R412018267	Plug, M12x1, 4-pin	-	left
R412018268	Plug, M12x1, 4-pin	left	-

UL: Logic voltage (power supply for electronic components and sensors), UA: Actuator voltage (power supply for valves and outputs), The supply voltage is galvanically isolated from the right-hand module.

Technical information

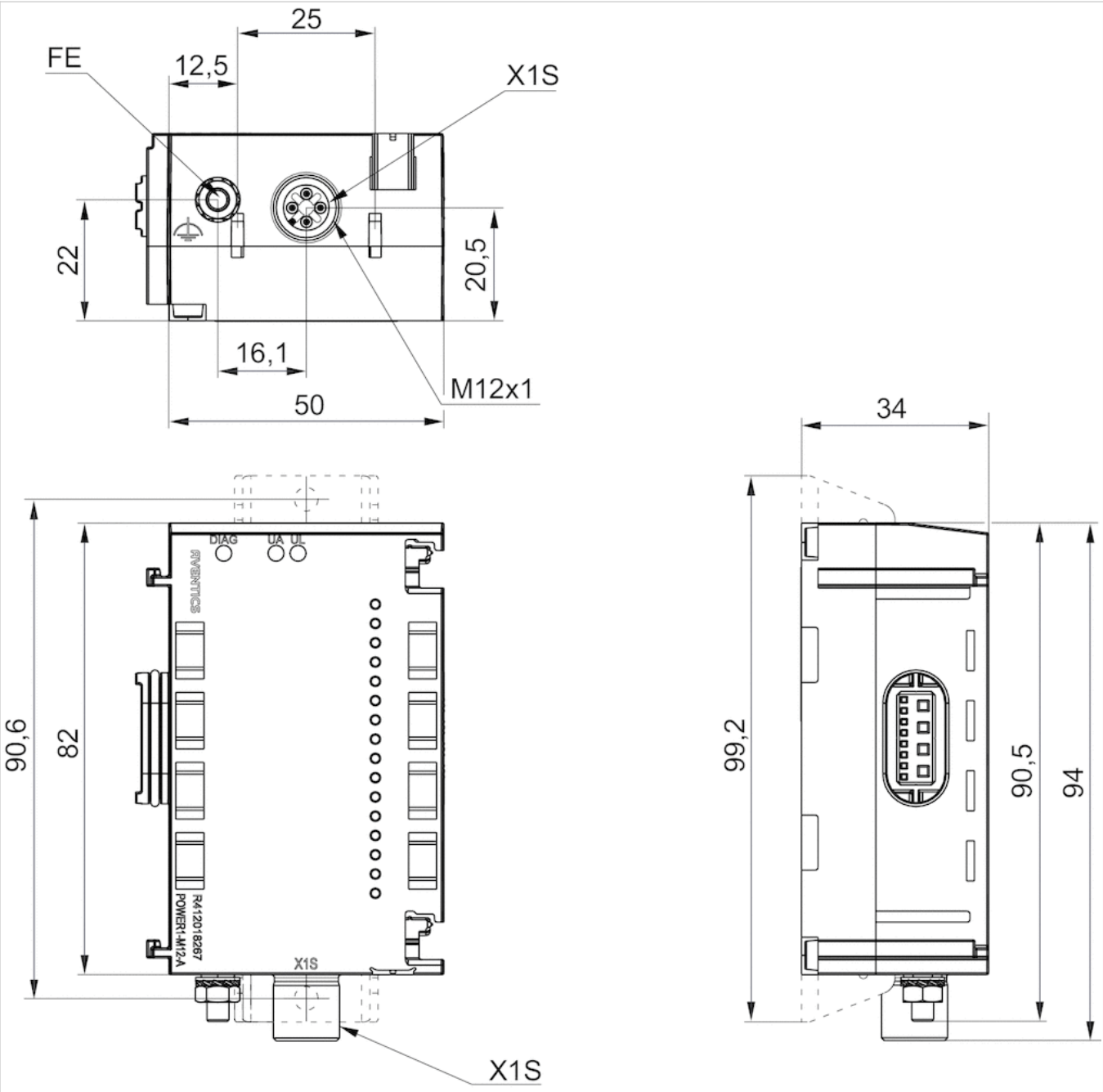
You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

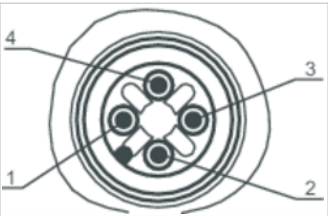
Dimensions



Port 1, X1S

Pin assignments

Pin assignments PNP



Pin	1		
R412018267 (UA)	-		
R412018267 (UL)	24 V DC power supply (UL) input		
2	3	4	
24 V DC power supply (UA) input	-	0 V DC (UA)	
-	0 V DC (UL)	-	

Series AES

- power supply 7/8", 5-pin
- Power module
- Plug, 7/8"-16UNF, 5-pin



Version	Power module
Ambient temperature min./max.	-10 ... 60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-20% / +20%
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65
Total current of sensors,max.	4 A
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0,15 kg

Technical data

Part No.	Port	Port	Power supply direction
	1	2	UL
R412018272	Plug, 7/8"-16UNF, 5-pin	Socket, 7/8"-16UNF, 5-pin	left, right
R412018273	Plug, 7/8"-16UNF, 5-pin	Socket, 7/8"-16UNF, 5-pin	-
R412018274	Plug, 7/8"-16UNF, 5-pin	Socket, 7/8"-16UNF, 5-pin	left

Part No.	Power supply direction	
	UA	
R412018272	left, right	1)
R412018273	left	2)
R412018274	-	2)

UL: Logic voltage (power supply for electronic components and sensors), UA: Actuator voltage (power supply for valves and outputs), If connection 2 is not used for forwarding, it must be closed with sealing cap R412024838.

1) Power plug X1S on the bus coupler must be closed with sealing cap R412024837.

2) The supply voltage is galvanically isolated from the right-hand module.

Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

The supply voltage from X1S1 is available at X1S2 (without modification)

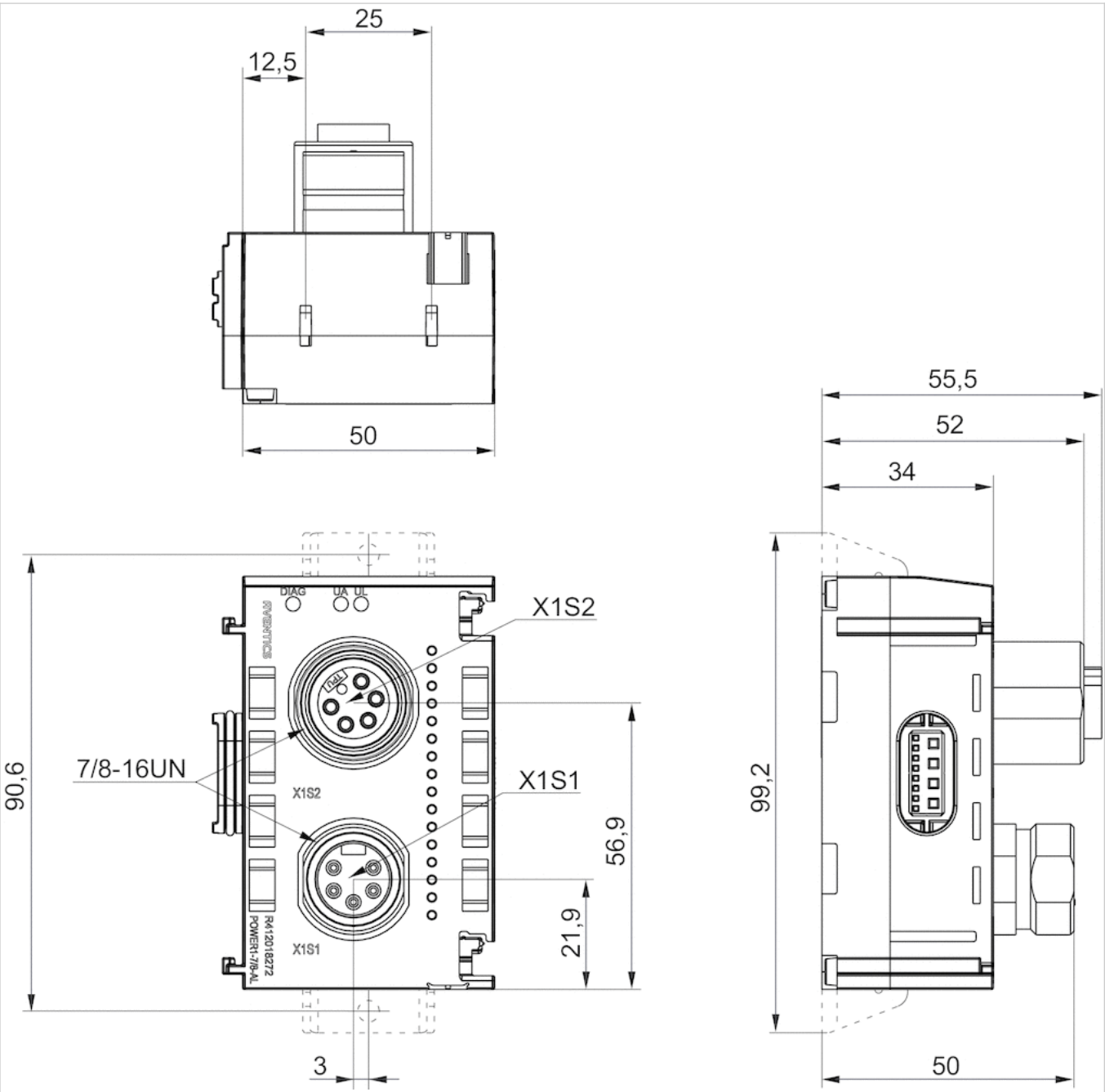
The total internal current (UA or UL) and consumption at X1S2 must not exceed 8A at X1S1.

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced

Dimensions

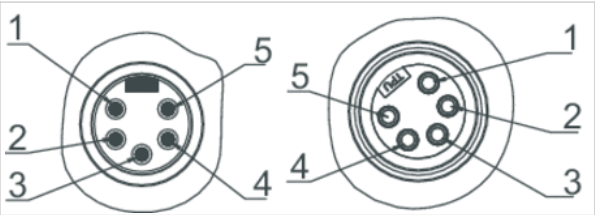
Dimensions



Port 1, X1S1
Port 2, X1S2

Pin assignments

Pin assignments PNP



Pin	1	2	3
Plug X1S1	0 V DC (UA)	0 V DC (UL)	FE
Socket X1S2	0 V DC (UA)	0 V DC (UL)	FE

4	5
24 V DC power supply (UL) input	24 V DC power supply (UA) input
24 V DC power supply (UL) output	24 V DC power supply (UA) output

Accessories, Series HF02-LG



Weight

See table below

Technical data

Part No.	Type	Delivery unit	Weight
1827020289	Separator	1 piece	0,002 kg
R412004540	subbase gasket, pneumatic part	10 piece	0,001 kg
1821015841	valve/subbase seal	10 piece	0,005 kg
1821A39036	Supply plate, incl. sealing kit, 2x mounting screws	1 piece	0,28 kg